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Visualizing Evaluative Language in Relation to Constructing Identity in English Editorials and Op-Eds

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

Department of Linguistics

University of Sydney

September 2014
DECLARATION

I certify that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy in the Department of Linguistics, University of Sydney, does not incorporate without acknowledgement any material previously submitted for a degree or diploma in any university, and that to the best of my knowledge and belief it does not contain any material previously published or written by another person where due reference is not made in the text.

Bandar Alhumaidi A. Almutairi
MLitt (Applied Linguistics), BA (Linguistics)

September, 2014
This thesis is concerned with the problem of managing complexity in Systemic Functional Linguistic (SFL) analyses of language, particularly at the discourse semantics level. To deal with this complexity, the thesis develops AppAnn, a suite of linguistic visualization techniques that are specifically designed to provide both synoptic and dynamic views on discourse semantic patterns in text and corpus. Moreover, AppAnn visualizations are illustrated in a series of explorations of identity in a corpus of editorials and op-eds about the bin Laden killing. The findings suggest that the intriguing intricacies of discourse semantic meanings can be successfully discerned and more readily understood through linguistic visualization. The findings also provide insightful implications for discourse analysis by contributing to our understanding of a number of underdeveloped concepts of SFL, including coupling, commitment, instantiation, affiliation and individuation.
ACKNOWLEDGEMENTS

First and foremost, I am profoundly indebted to my Principal Supervisor Jim Martin: Jim, I am deeply grateful for your insightful guidance, enthusiastic encouragement, stimulating advice, continuous support, wise comments and most importantly your unending patience throughout the entire process of writing this thesis. Every word in this thesis is dedicated to you.

I would also like to thank my Associate Supervisor, Michele Zappavigna. Thank you Michele for suggesting the research which culminated in this thesis. Thank you for your confidence in me, and for your tremendous support during my MLitt and PhD journeys.

Also, my special thanks go to Shooshi Dreyfus and Sally Humphrey, who helped me see the beauty of systemic theory, when I first joined the Master’s program in the University of Sydney. To the two of you I am obliged to say “your teachings are still fresh in my mind and I heed them well”.

I also thank all my PhD colleagues for the good times in meetings and conferences. My deep gratitude is owed to Yaegan Doran, who generously took the time and effort to read several parts of this thesis and to provide me with valuable feedback and ideas.

I am also grateful for those who helped me shape the work presented in this thesis. My sincere thanks to Mick O’Donnell, whose brilliant expertise, advice and feedback helped me improve the visualization techniques proposed in this work. I also want to express my gratitude to Professor Peter Eades, from the School of Information Technologies at the University of Sydney. Professor Eades did not only provide me with his kind and useful feedback on the mathematical and visualization aspects of my work, but also allowed me to attend his graduate course on Information Visualization, which has greatly expanded my understanding of this new and emerging field.

And finally, I would like to thank Professor Andy Dong, from the Faculty of Engineering and IT at the University of Sydney, for his valuable suggestions and encouragement during the early stages of this work.
To my mother, my wife and my kids. Without your patience and love, none of this work could have been possible.
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Chapter 1 Introduction

“Language is not simple; it is ferociously complex — perhaps the single most complex phenomenon in nature; and at least some of that complexity had to be accounted for.” (Halliday, 2005:243)

This thesis is concerned with the complexity of language, and it offers a number of visualization techniques as tools that can assist discourse analysis. This introductory chapter begins with identifying possible sources of complexity in text analysis, and defining the problems addressed in this thesis (section 1.1). The chapter then outlines the research objectives and specifies the principle questions the current study is intended to answer (section 1.2). The final section (1.3) provides an overview of thesis organization and scope.

1.1 Research Problématique

Language is a complex phenomenon, and consequently, theories, descriptions and analyses of language reflect and manage, to varying degrees, this complexity. One particular theory that does so is Systemic Functional Linguistics (SFL). SFL is a versatile theory that helps us explore the intrinsic complexity of language. This theory, as will be detailed in the following chapter, factors out the complexity of language into multiple dimensions, with a strong orientation towards text and discourse (e.g. Halliday, 1985; Martin, 1992a; Martin & Rose, 2003). SFL’s multidimensional perspective on language and orientation to text provides, in turn, a comprehensive and robust “set of tools, linguistic terminology, categories and frameworks, for analysing text” (Lillis & McKinney, 2003:61).

However, the analytical power afforded by SFL involves a trade-off between comprehensiveness and comprehensibility — between elaborate and extensive analyses of text and our ability to extract meaningful patterns from them. On the one hand,

“if we are to talk convincingly about long-range … patterning then we face the problem that our evidence is somewhat intractable: the patterns we are interested in extend beyond a single page or screen, in essence they extend beyond what we can hold in consciousness in a given moment.”
On the other hand, the patterns often involve multiple meanings that are woven together, and interact with each other simultaneously as text unfolds.

To illustrate this, I will briefly consider the SFL appraisal framework (Martin & White, 2005; see section 2.1.3 for a detailed review). Appraisal is proposed to account for evaluative language in discourse, and it organizes evaluative meanings along three dimensions: one is concerned with evaluations of people and things (ATTITUDE), one with the sourcing of propositions and proposals (ENGAGEMENT), and the other with the gradability of evaluations (GRADUATION). For the sake of simplicity and space, GRADUATION will be set aside in the following discussion.

ATTITUDE is organized, in terms of what is being evaluated, into three subtypes: affect, judgment and appreciation. AFFECT is about feelings such as happiness, desire, fear, and pleasure. JUDGMENT is about evaluations of people’s character and behaviour (e.g. kindness, trustworthiness). APPRECIATION includes evaluations of phenomena’s value, worth, quality or complexity. Attitudinal meanings are also classified along another dimension: POLARITY— they can be positive (e.g. happy, kind, easy) or negative (e.g. sad, mean, difficult).

ENGAGEMENT is concerned with the writer/speaker’s point of view (or stance) towards what is being said. Meanings of ENGAGEMENT are categorized into monoglossic and heteroglossic. Monoglossic engagement refers to utterances that present a proposition as a non-negotiable given or ‘factual’, and that thereby does not allow for dialogic alternatives. Heteroglossic engagement includes formulations that recognize (and allow for) other viewpoints towards what is being presented in the text. The degrees of recognition of (or allowance for) other viewpoints vary, and thereby the degrees of negotiability of what is being proposed vary as well. Some heteroglossic utterances implicate the existence of an alternative point of view in order to reject, challenge or supplant it (contractive heteroglossia). Other utterances present alternative views as preferable, valid or at least existent (expansive heteroglossia).

The dimensions of APPRAISAL discussed so far can be represented through what is known in SFL as a system network (reviewed in further detail in section 2.1.1.3). A system network is a visual representation of the language systems, options or features
within each system, as well as the relations between them. The system network in Figure 1.1 shows the three systems of APPRAISAL and the features available under each system. Beginning with ATTITUDE, this system is cross-classified according to two further subsystems: TYPE and POLARITY. Features within these subsystems have an ‘or’ relation indicated by square brackets, whereas features between them have an ‘and’ relation signalled by the right facing bracket. That is, when we make a choice of ATTITUDE, it must be either ‘affect’, ‘judgment’ or ‘appreciation’. Similarly, when we make a choice of POLARITY, it must be either ‘positive’ or ‘negative’, since an attitudinal instance cannot be simultaneously both. In contrast, features across TYPE and POLARITY must be simultaneously selected, as an attitudinal instance is always positive or negative. This results in six possible combinations of TYPE and POLARITY features (e.g. positive and affect, negative and affect, positive and judgment and so on). Furthermore, ENGAGEMENT and ATTITUDE have a simultaneous (‘and’) relationship. Every instance of ATTITUDE must be presented either monoglossically or heteroglossically, and if heteroglossically, it must be either ‘contracted’ or ‘expanded’, and so forth. This, in turn, increases the overall ‘potential’ combinations of the APPRAISAL features in Figure 1.1 (to eighteen possible combinations, e.g. affect and positive and monoglossic).

Figure 1.1: Simple System Network of APPRAISAL

Combinations of simultaneous systemic features have been addressed in a number of SFL studies under the label of ‘systemic intersections’ (as in Nesbitt &
Plum, 1988; Halliday, 1991a; Matthiessen, 2006), or ‘couplings’ (as in Martin, 2000a, 2008a & 2010). A coupling, as defined by Martin (2008a), refers “to the ways in which meanings combine, as pairs, triplets, quadruplets or any number of coordinated choices from system networks” (p. 39). Martin (2008a) also points out that coupling is related to another important concept in SFL: the concept of instantiation. Instantiation (as will be further discussed in section 2.1.1.2) describes the relationship between language as system and language as text. SFL views system and text as a single phenomenon looked at from different angles (e.g. Halliday, 1992a). System represents the overall meaning potential, whereas text ‘instantiates’ this potential. In other words, system comprises potential choices that are actualized in text. Between system and text, there are different points of generality where choices are ‘instantiated’ in for example a genre/register, a group of similar texts or corpora (more on genre and register in section 2.1.1).

For Halliday (1991a), the relationship between system and text is probabilistic, as he clarifies “it had always seemed to me that the linguistic system was inherently probabilistic, and that frequency in text was the instantiation of probability” (p. 31). Halliday (1992b) uses the analogy of climate and weather to describe this relationship. More specifically, the system is the global set of probabilities of choices or features “in the same way that climate is the set of probabilities in weather” (Halliday, 1992b:90). Halliday (1991b) also notes that at the system pole, global patterns of probabilities tend “towards one or other of just two types, i) equiprobable, and ii) skew, with skew tending towards a ratio of …nine to one” (p. 44). As an example of an equiprobable system is the clause PROCESS TYPE, where the features material, mental and relational have equal probabilities of being chosen (Halliday, 2005:48). An example of a skewed system is the clause POLARITY with positive tends to be selected 90% of the time and negative 10% (p. 48).

As we move away from system towards text, global probabilities of systemic features become more ‘localized’ or ‘conditioned’ by various contextual variables (context is discussed in section 2.1.1). This conditioning of probabilities functions to distinguish one register from another, or one corpus of similar texts from another. As an example, while the clause process types are equiprobable at the system pole, Matthiessen (2006:106) observes that around 60% of clauses in news reports are material. That is, the contextual factors of ‘news reports’ condition the potential
‘equiprobability’ of PROCESS-TYPE in order to distinguish ‘news reports’ from other types of text. For Halliday (1991a), it is these variations or ‘re-settings’ in local probabilities that define a register, where “a register is a tendency to select certain combinations of meanings with certain frequencies, and this can be formulated as the probabilities attached to … systems” (p. 33). By the same token, a group of similar texts or even a single text are subject to the same conditioning where local probabilities distinguish one text from another. However, at the text pole, a further type of probabilities should be taken into account. This type (referred to as ‘transitional probabilities’) is related to text time and the logogenesis of text (logogenesis is discussed in 2.1.1.5) and it indicates how the probabilities of systemic choices vary as text unfolds (logogenetically). In other words, it is concerned with “how the choice of a/b is affected by the choice made in the same system in the preceding clause, or other relevant unit, in the text” (Halliday, 1991b:57).

As far as coupling is concerned, the potential combinations between systemic features (or more accurately, their probabilities of co-occurrence) are narrowed down as we move, along the cline of instantiation, from system to text (Martin, 2008a:33). For example, looked at from the system pole, the APPRAISAL features in Figure 1.1 can combine (or couple) freely with each other, and, theoretically, all the eighteen couplings are equally likely to occur, or are equally available to choose from. However, as we move towards the text pole, and examine these couplings in a group of similar texts (or a single text), we may notice that some couplings become more likely to occur than others (e.g. negative judgments are more likely to couple with heteroglossic than monoglossic engagement). Furthermore, when these texts are explored (‘logogenetically’) as they unfold over time, the ‘transitional probabilities’ of a coupling may vary according to what couplings have already been made in the text. As will be further investigated in chapters 3 and 5, these probabilistic variations along the instantiation cline are what by and large differentiate one text from other texts in a corpus or one subcorpus from another. However, the main focus here is to pinpoint the possible sources of complexity of linguistic patterns in SFL discourse analysis contexts.

The first possible source is the potentially unlimited number of combinations (or couplings) across language systems at the system pole of instantiation. This kind of complexity is in fact a function of two factors: the number of simultaneous systems we
consider in our discourse analysis and the level of ‘delicacy’ chosen within each system. Delicacy is the depth of detail in a system; a scale from general features to more specific ones (Halliday, 1961). For instance, we will see in section 2.1.3 that heteroglossic engagement can be further categorized into ‘disclaim’, ‘proclaim’, ‘entertain’ and ‘attribute’. If we include these delicate choices of heteroglossia in the system network in Figure 1.1, then the number of potential combinations increases (to thirty) as a result of increased delicacy. Furthermore, if we include other systems such as GRADUATION (which has approximately 11 features at medium delicacy in Martin & White, 2005:154), then the number of potential APPRAISAL couplings increases dramatically (up to 330 couplings). This source of complexity in SFL discourse analysis (which can be referred to as ‘combinatorial complexity’) is coupled with a second related source: ‘representational complexity’.

Representational complexity arises when we move from system pole towards text along the cline of instantiation. Here, in addition to a potentially considerable number of couplings, the instantiation patterns of these couplings can be extremely difficult to deal with, detect and interpret, especially when we are concerned with how these patterns emerge and interact during the unfolding of text. As a result, we need methods to visually represent our linguistic analyses (and annotations), in such a way that exploring and studying coupling patterns and complex systemic interactions are less laborious and less costly. In the following paragraphs, a number of such methods will be briefly discussed.

One straightforward method is to modify the system network, which is intrinsically restricted to systemic potential, by adding relative frequencies (or ‘local probabilities’) of systemic co-choices and couplings in a corpus or a text. An example of this method is given in Figure 1.2. Here, relative frequencies are attached to each feature in the TAXIS and LOGICO-SEMANTIC TYPE systems. In addition, ‘conditional’ probabilities are included on the right side of the system network in order to indicate the frequencies of couplings. For instance, whereas the (absolute) probability of choosing hypotaxis is 0.42 and the probability of choosing projection: idea is 0.66, choosing both simultaneously has a probability of 0.47. However, although this method of representation can provide a synoptic view on local probabilities of systemic co-choices in a text or group of texts, it has two significant limitations. First, it is limited to two systems. When more systems are included in the network, the
intersections between all features become very hard, if not impossible, to represent. Second, it does not provide a dynamic view on the couplings. In other words, it does not show how ‘transitional probabilities’ of couplings change over text time, or how features interact with each other logogenetically to couple and decouple as we move from one phase (or moment) of the text to another.

![Diagram](image)

**Figure 1.2:** frequencies of coupling TAXIS and LOGICO-SEMANTIC TYPE (Matthiessen, 2002:103).

As far as text time is concerned, an alternative representation of systemic features is to use a tabular format to show the features as they are being instantiated in a text. An example of this tabular representation is shown in Figure 1.3. Here, every feature of ATTITUDE (e.g. affect) is given a column. The first column lists the lexical realizations of instances, the second shows the sources of instances (Appraisers), the last the targets of instances (Appraised). In terms of coupling, every row then represents a coupling of ATTITUDE and ideational entities (ideation is discussed in 2.1.1.4). For instance, the first row shows the coupling instance between positive appreciation: composition and the ideational entity ‘Q’s copy’ as target. Nevertheless, the ‘representational complexity’ of this table can increase dramatically when the
number of features (as a result of more delicacy or more systems) and/or the number of instances increase. Accordingly, this may render the table very difficult to deal with, and logogenetic patterns may be obscured by too much detail and extravagant (textual) annotations.

![Image depicting a table](image)

**Figure 1.3:** attitude analysis of an extract from the Shipping News novel (Martin & White, 2005:74)

To improve our ability to detect complex logogenetic patterns, colours can be used, alongside textual annotations, to encode systemic features. In fact, this is becoming a common method for representing systemic features in SFL analyses, particularly of appraisal (e.g. Coffin, 2000; Doyle, 2011; Nakamura, 2009; Suksawas,
2011; Walker, 2013; Watson, 2012). The use of colours in these studies is primarily motivated by the assumption that colour is an effective visual code for representing categorical data such as linguistic annotations (Bertin, 1983; Mackinlay, 1986) (colour and categorical data will be further explored in section 2.2). As an example, Figure 1.4 provides a colour-coded representation (CCR for short) of attitudes in an editorial article. Here, the APPRAISAL analysis involves six attitudes (resulting from coupling POLARITY and TYPE features), each of which is given a particular colour (e.g. green with a black background indicates negative judgment). Although the CCR is complex, on close examination we can identify some salient patterns of ATTITUDE features. First, the colours suggest that negative judgment is (sporadically) dominant in the text (e.g. evil, planned to kill countless more, torture, injustice, barbarians, and demon). Second, there is a systemic preference (or intra-systemic coupling) between positive appreciation and positive judgment in clauses [4] and [5] (e.g. civilized, morally, and sound). Third, there is a recurrent preference between positive affect and negative judgment in the middle parts of the texts (e.g. relieved [15] and wrong [16]; glad [23] and medieval [24]). A detailed interpretation of these patterns is provided in Chapter 5 and Appendix I; the main point to make here is that systemic patterns in a CCR can be detected with less effort when compared to a table of textual annotations.

![Figure 1.4: example of colour coding of six attitudes in an editorial article](image)

Nonetheless, as with tables of annotations, CCRs can be very difficult to ‘decode’ when additional distinctions are included. For instance, the difference between the two negative judgment instances in clause [1] (Figure 1.4) lies in two
further systemic dimensions. First, the two instances differ in terms of the ‘appraised’ ideational entities—the first targets ‘bin Laden’ (in killing evil) and the second targets ‘we/us/Americans’ (in make us evil). Second, whereas the first instance is proposed monoglossically (killing evil1), the second is heteroglossically ‘denied’ (in doesn’t make us evil). This might encourage us to include ENGAGEMENT and IDEATION in the CCR above. One way to modify the CCR to encode these systems is to use background colours for ENGAGEMENT, font properties for POLARITY, and front colours for ATTITUDE TYPE. Furthermore, ideational labels can be inserted after attitudinal instances. This results in the CCR given in Figure 1.5. The complexity of this CCR is far greater than the previous one, although only two systems are added. Consequently, detecting and extracting meaningful patterns of features and couplings becomes far more difficult.

Figure 1.5: example of colour coding of six attitudes and three choices of ENGAGEMENT in an editorial article

When we compare the CCR in Figure 1.4 with the one in Figure 1.5, we can, in fact, observe that the main cause of visual complexity in the latter is the use of a single visual element, namely colour, to encode multiple systems. One possible way to overcome, or at least mitigate, this visual complexity is to incorporate more visual elements such as shape and size. We might for example use disc shapes to represent the ATTITUDE system in such a way that a full disc encodes a positive attitude instance and an incomplete (or distorted) disc encodes a negative instance, as shown in Figure 1.6 below. In this figure, the two negative instances (evil...evil) in clause [1],

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1 In Chapter 3, I will argue that the nominal group involves monoglossic engagement.
for instance, are represented by two distorted discs. It can also be noted that the discs are arranged (from left to right) according to their relative locations within the clause.

Figure 1.6: using disc shape to visually encode attitude \textsc{polarity} in a text: complete discs represent positive attitude instances, and distorted discs represent negative instances.

Furthermore, we might use colours to differentiate between features within the \textsc{attitude type} system, as shown in Figure 1.7. Here, affect is encoded by magenta, judgment by green, and appreciation by yellow.

Figure 1.7: adding colour to encode \textsc{attitude type}
Moreover, the ideational entities targeted by attitudes might be represented by small discs with colours distinguishing one entity from another, as illustrated in Figure 1.8. For instance, the first negative judgment instance in clause [1] targets the entity ‘bin Laden’. This entity is represented by a red disc enclosed within the larger disc of negative judgment.

Figure 1.8: smaller discs enclosed within attitude discs encode target entities

Finally, rectangles might be used to encode ENGAGEMENT, with colours indicating the type of engagement (e.g. gray for monoglossic). This results in the representation given in Figure 1.9.
In Figure 1.9, it might be noted that I use ‘visual enclosure’ to signal APPRAISAL couplings. That is, discs representing target entities are enclosed by ATTITUDE discs. In turn, ATTITUDE discs are encompassed by ENGAGEMENT rectangles. For instance, in clause [2], the positive affect (I want memory, and justice) is triggered by the killing of bin Laden. Accordingly, the cyan disc (encoding the killing) is enclosed by the magenta complete disc (encoding positive affect). And, as this instance is proposed monoglossically, both discs are enclosed by a gray rectangle. The assumption here is that once the analyst is well acquainted to the coding scheme, s/he will be able to identify coupling patterns and observe logogenetic changes of systemic features less laboriously with this kind of visual representation than with textual annotations or CCRs. The basis of this assumption (as will be further discussed in Chapter 2, section 2.2) is that, unlike textual annotations, visual elements (such colour, shape, size, position etc.) “are immediately perceived [by the analyst] without the need for conscious attention” (Mazza, 2009:38; see also Ware, 2004:149).

The mapping instances of APPRAISAL as coloured circles and rectangles in Figure 1.9 is in fact an example of Linguistic Visualization. Simply speaking, Linguistic Information Visualization\(^2\) (or LInfoVis for short) refers to the conversion of linguistic data from textual or numerical (e.g. frequencies of features) annotations to visual objects and elements such as shapes and colours, typically through some computer software. LInfoVis techniques are widely used for linguistic purposes,

\(^2\) In this thesis, I use ‘Linguistic Information Visualization’ and ‘Linguistic Visualization’ interchangeably.
including corpus studies (e.g. Culy & Lyding, 2011), phonology (e.g. Mayer et al., 2010), conversation analysis (e.g. Tat & Carpendale, 2002), online chat discourse (e.g. Fabo & Novotný, 2012), cohesion and discourse structure (e.g. Zhao et al., 2012), emotional lexis in discourse (e.g. Oelke et al., 2008), to mention but a few. Nevertheless, most, if not all, current LInfoVis techniques are poorly suited to SFL discourse analysis, mainly due to their central focus on lexical items; we will discuss this point in detail in chapter 4.

To assist SFL discourse analysis and grasp the complexity of systemic patterns, we need SFL-oriented visualizations that are consistent with the fundamental SFL concepts and principles discussed in the following chapter. As Martin (2008a, 2010 & 2011) emphasizes, recent SFL notions such as coupling cannot be fully understood without the help of visualization tools,

“Until mathematically based animated visualizations are designed for the real time coupling of couplings in unfolding discourse, it is hard to see how more than anecdotal progress can be made on this frontier. We know that texts are snowballing, i.e. accumulating meanings, but we can’t yet get a synoptic purchase on what is going on.” Martin (2010:29)

The pressing need for systemic visualization techniques is stressed in a number of recent SFL studies, particularly Martin (2008a, 2010 & 2011), Zappavigna et al. (2008 & 2010), Podlasov et al. (2012) and Almutairi (2013). This thesis is an attempt to address this need by designing and implementing a number of systemic visualization techniques. SFL has often been re-deployed in new domains of use; this study hopes to demonstrate that it is also open to support from other fields, data visualization in particular.

1.2 Research Aims and Objectives

The overall aim of this thesis is to design and illustratively deploy an integrated annotation and visualization system that can assist SFL discourse analysis (interpersonal discourse semantics in particular). To achieve this aim, a number of research objectives are outlined for this thesis. Firstly, in order to design a visualization

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3 Data visualization, information visualization and linguistic visualization are defined in chapter 2, section 2.2.
technique, we need to look into what constitutes an ‘effective visualization’. This includes exploring the fundamental principles for designing a visualization system—including optimal visual mapping, encoding schemes, types of data, interactivity, animation, view manipulations, and visualization heuristics. And, since this thesis is ultimately concerned with linguistic data, we also need to investigate how linguistic data are currently ‘visualized’. This is achieved through a critical review of relevant linguistic and non-linguistic literature on linguistic visualization.

Secondly, designing techniques that are able to visualize SFL analyses requires a review of basic SFL concepts—including stratification, instantiation, axis, metafunction, delicacy, social context, and logogenesis. The purpose of this review is threefold: i) to ensure that the systemic visualizations proposed in this thesis are properly aligned with these principles, ii) to lay the foundations for the linguistic analyses conducted in this study, and iii) to enable the critical review of current linguistic visualization techniques.

Alignment with SFL fundamental principles means that a visualization system should, at least, fulfil the following criteria. First, the system should offer capabilities for annotating (through system networks), storing and managing text and corpora. Second, the visualization techniques should:

i) provide both synoptic and dynamic views on the systemic analyses;

ii) provide more textual information about the visualization when needed;

iii) allow for different levels of delicacy;

iv) show simultaneous language choices (couplings),

v) allow for different units of text time (e.g. clause, sentence, paragraph, generic stage); and

vi) deploy multidimensionality reduction to get a ‘panoptic’ view on systemic patterns, at different points of instantiation.

These criteria are by no means definitive, but they do provide guidelines for both current and future work on systemic visualization.

Thirdly, the systemic visualizations developed in this thesis will be illustrated by applying them to the linguistic analysis of an English corpus. The corpus consists of seven editorials and op-eds arguing for and against killing Osama bin Laden by the U.S
military; in order to keep the thesis proper to a reasonable length, the ‘against’ corpus is analysed in Chapter 5, and the ‘for’ corpus in Appendix I. The analysis mainly involves the discourse semantic systems of ATTITUDE, ENGAGEMENT, CONJUNCTION and IDEATION (reviewed in section 2.1.2). I should emphasize here that the linguistic analysis carried out in this research is open to different interpretations and by no means conclusive or incontestable. The main purpose of this analysis is to provide the context for illustrating and demonstrating the visualization techniques proposed in this thesis. Based on the visualizations of this analysis, the main linguistic question I will address is how the writers use couplings of APPRAISAL, IDEATION and CONJUNCTION in order to rhetorically align/disalign target readers with a view arguing against or for the killing, to negotiate solidarity and establish communities around the killing issue, and to affiliate or disaffiliate with these communities. This question will be explored from both synoptic and dynamic perspectives (i.e. the overall patterns of coupling that characterize the articles against the killing versus the dynamic, logogenetic interactions between couplings as text unfolds). Finally, building on work on bonding and individuation (Stenglin, 2004; Martin & Stenglin, 2006; Knight, 2010a & 2010b; see section 2.1.1.7 below), the thesis will attempt to describe how the writers construct particular identities, propose and negotiate (through APPRAISAL couplings) various in-group and out-group bonds.

In terms of these aims and objectives, it can be seen that the current thesis draws on insights from a number of fields, as illustrated in Figure 1.10 below.
1.3 Overview and organization of the thesis
In addition to this introductory chapter, the thesis includes four additional chapters. Chapter 2 provides an overview of the theoretical foundations upon which this thesis is based. The chapter is divided into two main sections. The first section explores the key concepts of systemic functional linguistics, including the fundamental hierarchies and complementarities that lay the foundations for the linguistic analysis carried out in the study. This section also introduces the analytical framework utilized in this thesis, focusing in particular on Martin’s discourse semantic systems. The second section discusses the main principles relating to the development of visualization techniques. The discussion provides guidelines for the development of the linguistic visualizations proposed in this thesis.

Chapter 3 locates the current research within the literature on the genres of newspaper opinion; and it discusses newspaper editorials and op-eds in terms of social purpose, generic structure and characteristic patterns of linguistic features. The chapter begins with a review of models that describe the potential generic stages of English
editorials. The review concludes with the motivation for adopting the Write It Right model in the generic analysis of the thesis corpus (Iedema et al., 1994; Feez et al., 2008). The purpose of this analysis is to explore meaningful logogenetic units of text time when coupling is examined from a dynamic perspective. The chapter then provides a review of the literature on evaluative language in editorials and op-eds. The purpose of the review is threefold: i) to identify the characteristic patterns of evaluative language in this genre, ii) to highlight gaps and limitations in the relevant literature, and iii) to define specific areas of inquiry that will be explored in Chapter 5. The final section of Chapter 3 introduces the bin Laden killing corpus, discusses some methodological issues and establishes a number of analytical criteria.

Chapter 4 is divided into two main sections. The first section critically reviews a number of current linguistic visualization techniques, focusing on those relevant to this thesis. The review describes how linguistic data can be visualized, and identifies the limitations that need to be overcome in order to develop effective SFL visualizations. The second section introduces AppAnn system, the system developed in this thesis to analyze and visualize discourse semantic patterns, particularly couplings of ATTITUDE, ENGAGEMENT, IDEATION and CONJUNCTION. This section begins with a description of the main computational tools in AppAnn, including annotation, automatic extraction of ideational entities, linking pronouns to entities, grouping entities, and conjunction analysis. Subsequently, six AppAnn visualization techniques are discussed in terms of visual mapping, encoding schemes, and possible applications, with examples from the thesis corpus.

Chapter 5 applies AppAnn visualization techniques to the discourse semantics analyses of the ‘against the killing’ editorials and op-eds. The main purpose of this chapter is to illustrate how AppAnn visualizations can be used in an actual SFL discourse analysis, and to answer the linguistic questions posed earlier. This chapter is also divided into two main sections. The first section is concerned with synoptic patterns of coupling ATTITUDE, ENGAGEMENT and IDEATION from the perspective of a subcorpus level of instantiation. The purpose of this section is to identify (and interpret) the overall rhetorical motifs that shape the ‘against the killing’ voice, align/disalign readers with a view against the killing, and negotiate solidarity with communities around the killing. The second section shifts the analytical gaze from a synoptic to dynamic perspective. The purpose is to explore how features of ATTITUDE,
ENGAGEMENT and IDEATION interact, couple and decouple as text unfolds, and, in turn, how bonds are proposed and negotiated dynamically, as we move from one generic stage to the next. In both sections, it will also be demonstrated how AppAnn visualizations can help us find ‘hidden’ linguistic patterns—i.e. complex patterns that are difficult to see in under-visualized textual annotations.

Chapter 6 concludes the thesis. The chapter is divided into two sections. The first section provides a summary of the key findings of this study, and highlights the specific contributions of this thesis in relation to the: i) linguistic information visualization, ii) study of rhetoric and persuasion in editorials and op-eds, and iii) systemic notions of coupling, bonding, affiliation and individuation. The final section discusses the limitations of this research, and the possibilities for future research with respect to computational SFL, linguistic visualization and systemic functional discourse analysis.
Chapter 2 Theoretical Foundations

As discussed in the previous chapter, the current study is inherently interdisciplinary as it draws on three fields of knowledge, namely computer visualization, linguistics and discourse analysis. This chapter offers an overview of the theoretical foundation on which this research is based. The review is divided into two main sections. Section 2.1 is concerned with the basic concepts and central tenets of Systemic Functional Linguistics, specifically the three systemic hierarchies (realization, instantiation and individuation), the two complementarities (meta-function and axis); and the notion of logogenesis. In addition, SFL work on cohesion and meaning beyond the clause, particularly Martin’s model of discourse semantics that characterizes and guides the discourse analysis conducted in this study, is reviewed. Section 2.2 is concerned with the technical foundations that underlie the design and implementation of the linguistic visualization techniques proposed in this thesis. These include the visualization pipeline, visual variables and types of data, interactivity and view manipulations, and dimensionality reduction of multivariable categorical data.

2.1 Systemic Functional Linguistics: Theoretical Foundations


More specifically, at the heart of SFL theory is the organization of language complexity according to a number of dimensions and ordering principles. In this section, the main dimensions and principles of SFL will be explored, with particular emphasis on those concepts that scaffold the movement form clause to text, on the one hand, and from text to corpus, on the other. First, this section will review key SFL hierarchies and complementarities, viz. stratification, axis, realization, delicacy,
instantiation, metafunction and logogenesis. Next, the notions of cohesion, texture and discourse semantics vis-à-vis coherence, context and genre will be outlined. Finally, this section will conclude by summarizing the contributions of these foundational aspects to the current study.

2.1.1 Systemic hierarchies and complementarities
To account for the complexity of language and its rich potential resources, Halliday, in an early model\(^4\) (1961), suggests that a theory of grammar can be described through four categories: unit, structure, class and system; and the relationship between these categories can be explained through three scales of abstraction: rank, exponence (Firthian term for realization) and delicacy. In later SFL works, these categories are expanded and further organized into five hierarchies: realisation, instantiation, individuation, delicacy and rank, and three complementarities: axis, meta-function and genesis. This subsection reviews these hierarchies and complementarities and discusses their application in this thesis.

2.1.1.1 Stratification and Realisation
Following Hjelmslev (1961), SFL models language as a stratified semiotic system with two basic planes: expression and content. However, Halliday (e.g. 1974:90) observes that while a bi-stratal view of language is sufficient to describe early protolanguage, the one-to-one relationship between expression and content planes does not hold when we move to adult language. Therefore, there is a need to further stratify the content level into lexicogrammar and semantics, which leads to the tri-stratal system diagrammed in Figure 2.1.1.1.

\(^4\) Influenced by Firth (e.g. 1957)
The relationship between these strata of language is described by the principle of ‘realization’

“…the system of phonology realises that of lexicogrammar; the system of lexicogrammar realised in phonology realises that of semantics; the system of semantics realised in lexicogrammar realised in phonology…” (Halliday & Matthiessen, 1999:605)

This realizational/encoding relationship is re-formalized in later work (e.g. Lemke, 1984; Halliday 1987) in terms of the ‘meta-redundancy’ principle. Accordingly, each level of abstraction is related not only to the level directly below it but to all levels down to phonology/graphology. This reinterpretation of realization is particularly crucial in the context of tri- (or more) stratal systems where realization is no longer seen as a causal relation, as Halliday outlines:

Consider a minimal semiotic system, such as a protolanguage – a system that is made up of simple signs. This is based on the principle of redundancy. When we say that contents p, q, r are “realized” respectively by expressions a, b, c, what this means is that there is a redundancy relation between them: given meaning p, we can predict sound or gesture a, and given sound or gesture a we
can predict meaning $p$. This relationship is symmetrical; “redounds with” is equivalent both to “realizes” and to “is realized by”. Let us now expand this into a non-minimal semiotic, one that is tri rather than bi-stratal. The expressions $a, b, c$ now realize wordings $l, m, n$ while the wordings $l, m, n$ realize meanings $p, q, r$. In terms of redundancy, however, these are not two separate dyadic relationships.

Rather, there is a metaredundancy such that $p, q, r$ redounds not with $l, m, n$ but with the redundancy of $l, m, n$ with $a, b, c$; thus:

$$l, m, n \
\downarrow \quad a, b, c \quad p, q, r \\downarrow (l, m, n \\downarrow a, b, c)$$

(Halliday, 1992c:24 original emphasis)

The SFL model of stratification also adds social context as a higher level above language, as will be further discussed in section 2.1.1.6.

2.1.1.2 Instantiation

While realization is “a scale of abstraction” describing interstratal relations, instantiation is “a scale of generalization” describing the relationship between language as potential for making meaning (i.e. system) and language as instance (i.e. text) (Martin, 2008a). One characteristic tenet of SFL is that system and text are a single phenomenon, looked from different points of view (cf. Chomsky’s ‘competence’ and ‘performance’ or Saussure’s ‘langue’ and ‘parole’). Halliday’s useful analogy here (e.g. Halliday & Matthiessen, 2004:26) is the difference between ‘climate’ and ‘weather’. Climate and weather are two aspects of the same phenomenon – climate being the long term trends of weather events, and weather is an actual instance of climate. Similarly, system and text are two sides of the same phenomenon: system is the long-range patterns of textual instances, and text ‘instantiates’ systems of language. Between these two extremes of the instantiation cline, there are intermediate patterns. These patterns are referred to in SFL as subpotentials/registers or instance types, depending on from which extreme they are approached, as Halliday and Matthiessen illustrate:
These patterns can be viewed either from the system pole as subsystems, or from the instance pole, as instance types. If we start at the instance pole, we can study a single text, and then look for other texts that are like it according to certain criteria. When we study this sample of texts, we can identify patterns that they all share, and describe these in terms of a text type. By identifying a text type, we are moving along the cline of instantiation away from the text pole towards the system pole.

(Halliday & Matthiessen, 2004: 27)

The climate/weather analogy also emphasizes the probabilistic nature of language in general and instantiation in particular (Halliday, 1984). Put it differently, frequency of linguistic choices “in text is the instantiation of probability in the system” and intermediate subpotentials are average frequencies associated with certain text types or registers (Halliday, 1991:42). In return, every instance of language ‘perturbs’ the local probabilities of the register it belongs to, and, consequently, “perturbs the overall probabilities of the system, to an infinitesimal extent” (Halliday, 1992a:76).

The theoretical implications of instantiation are vital to this research because it allows us to look at the interpersonal semantics patterns from different levels; e.g. from a middle-level to examine the overall patterns in the corpus or from an instance level to explore interpersonal semantics in a particular text. The probabilistic interpretation of language and its instantiation in texts is also critical to this study as the significance of certain interpersonal meanings and couplings at the discourse semantics level are determined by frequencies of linguistic features calculated from the whole corpus or a particular subcorpus, as further discussed in Chapter 3.

Furthermore, it should be noted that although stratification and instantiation provide different perspectives on language, they are closely interrelated. Martin (2011:251) emphasizes that the relationship between the two hierarchies is complementary since “all strata on the realization hierarchy instantiate.” This relationship is more evident when genre is included to both hierarchies as will be seen in section 2.1.1.6 below.
2.1.1.3 Axis, System Networks and Delicacy

In his *Course in General Linguistics*, Saussure (1983) points out that for a sign in a semiotic system to make meaning, it must enter into two kinds of relations with other signs: an associative or paradigmatic relation and a syntagmatic one. The paradigmatic relation is a relation of oppositions or “functional contrasts”: how the sign differentiates itself from other signs, whereas the syntagmatic relation is the structural relationship between signs in a sequence (Chandler, 2007:83). In SFL, these two dimensions comprise a fundamental complementarity referred to as ‘axis’, which aims to describe the relationship between system and structure.

The SFL view of language as a meaning potential and a semiotic resource leads to “an axial subtheory of the paradigmatic axis as the fundamental organizing principle of each level of the resource” (Martin & Matthiessen, 1991; see also Halliday 1985:8). SFL, then, gives clear priority to paradigmatic relations, as for Halliday (2003:9) “the power of language comes from its paradigmatic complexity … we model it paradigmatically: not as an inventory of structures”. In systemic theory, paradigmatic relations are represented as system networks of choices. These choices, in turn, are realized through syntagmatic relations in the form of functional structures. For example, the lexicogrammatical system of INDICATIVE TYPE (a subsystem of MOOD) comprises two features or choices: declarative and interrogative, as shown in Figure 2.1.1.2. The paradigmatic relation between these two choices is represented by square brackets (i.e. you can choose either declarative or interrogative but not both). Each feature is realized through a functional structure—e.g. declarative is realized by the functional structure Subject ^ Finite. The ‘realizational’ relation between a feature and a syntagmatic structure is visually represented by slanted arrows in the system network. A feature can also be an entry condition of another system. For instance, the feature ‘interrogative’ here is an entry condition of the system INERROGATIVE TYPE which comprises two features: yes/no and WH-. The relationship between the feature ‘interrogative’ and the latter features is one of ‘delicacy’. That is, yes/no and WH- are the more delicate choices of the INDICATIVE TYPE system.
This way of representing systems, features and realizational structures in system networks emphasizes the complementarity between the paradigmatic and syntagmatic, as “paradigmatic relations (formalized in system networks) are ‘realized’ through syntagmatic relations (formalized in function structures), and conversely, syntagmatic relations constrain and motivate paradigmatic ones” (Martin, 2012:250).

Martin & Matthiessen (1991) warn that:

“…by emphasizing the paradigmatic, and abstracting away from direct representation of sequence in text, systemicists put themselves in the position of not being able to account for choices which depend on just where the unfolding of a text the realisation process has reached… Accounting for these structure dependent choices, which take into account the meanings that have so far accumulated and where the text is going next then becomes the responsibility of dynamic representations, a frontier area of research in systemic theory.” (Martin & Matthiessen, 1991:360)

Therefore, in the current thesis, attention is given to both paradigmatic and syntagmatic relations since couplings of discourse semantic features are examined from both perspectives: i) which coupling comes before which at a given point in text (logogenetic) time, and ii) which coupling is preferred or ‘favoured’ instead of which coupling in a given text, or a group of texts (see also Zhao, 2011).
2.1.1.4 Metafunction and Types of Structures

In SFL, systems and structures of language are organized according to three metafunctions: ideational, interpersonal and textual. Halliday (1970) explains these three functions of language as follows,

“Language serves for the expression of “content”: that is, of the language structure and language function speaker’s experience of the real world, including the inner world of his own consciousness. We may call this the ideational function...

Language serves to establish and maintain social relations: for the expression of social roles, which include the communication roles created by language itself...Through this function, which we may refer to as interpersonal, social groups are delimited, and the individual is identified and reinforced, since by enabling him to interact with others language also serves in the expression and development of his own personality.

Language has to provide for making links with itself and with features of the situation in which it is used. We may call this the textual function, since this is what enables the speaker or writer to construct “texts”, or connected passages of discourse that is situationally relevant; and enables the listener or reader to distinguish a text from a random set of sentences.” (Halliday, 1970: 175)

The ideational metafunction is further divided into two sub-components: experiential “where we represent experience directly in terms of happenings...entities that participate in these happenings...and circumstantial features” and logical “where we represent experience indirectly in terms of certain fundamental logical relations in natural language” (Halliday, 1979:59).

The content strata (and ‘context’, as will be discussed in section 2.1.1.6) are organized metafunctionally. At the lexicogrammar, ideational meanings are captured in the transitivity structure of the clause, interpersonal in the mood structure and textual in the theme and information structures. The context stratum is diversified according to the three registerial variables: field, tenor and mode. Field refers to the “nature of the social process in which the text is embedded –‘what is going on’”; tenor is concerned with “the interpersonal relationships among the participants –‘who are taking part’”;
and mode is about “the role assigned to the text… —‘what part of language is playing’” (Halliday, 1981:40). Metafunctionally, ideational meanings construe the field of the text, interpersonal meanings enact the tenor and textual meanings compose the mode (Halliday, 1979:78). Later in section 2.1.2 we will see that Martin’s stratum of discourse semantics is also metafunctionally diversified. The metafunction hypothesis is important in this study as we are concerned with how interpersonal meanings in the discourse semantics interact with ideational meanings (in the form of evaluative couplings) to construct authorial identities and express communal and cultural belonging.

Metafunction also organizes language systems on each stratum according to the types of realization structure. Halliday observes that experiential meanings are “largely organized into particulate forms of representation…interpersonal meanings…are expressed more prosodically, as field-like structures” and textual meanings are associated with “periodic, wave-like patterns of discourse, in which prominence is achieved by beginnings and endings (of clause, paragraph and so on)” (Halliday, 1985:8). Martin (1997) further explains,

Particulate structure organizes text segmentally, into either orbital or serial patterns. Orbital structure takes one segment as nuclear, and associates other segments with this nucleus as satellites…; with serial structure…the text unfolds step by step, with each step dependent on the immediately preceding. Prosodic structure is supra-segmental; it spreads itself across a text, more or less intensely as required… Periodic structure is wave-like; it organizes a text into a rhythm of peaks and troughs, as the demands of information flow prescribe (Martin, 1997:17).

The three types of structure are summarized in Figure 2.1.1.3 below. Because this study primarily focuses on interpersonal meanings in the discourse semantics, prosodic patterns are of particular relevance and, thus, will be further discussed in section 2.1.2.2.
2.1.1.5 Semogenesis and Logogenesis

To account for and understand social semiotic change over time, Halliday and Matthiessen (1999) note that semogenic processes (i.e. processes in which meanings are created) take place within, at least, three time frames: phylogenetic, ontogenetic, and logogenetic. Phylogenetic time is concerned with the history of the semiotic systems and subsystems, where meanings evolve. Ontogenesis is concerned with “the history of the language user where meaning develops in a pattern of growth and maturation, followed by senescence, decay and death” (Halliday, 1997:5). Logogenesis is the history of the text; “the creation of meaning in the course of the unfolding of text” (Halliday & Matthiessen, 2004:530), and the study of which “enables us to see how the local, blow by blow patterning…builds up to create patterns that extend through whole phases of unfolding text, or indeed through the whole of a text” (p. 532).

The relationship between these time frames is one of inclusion: longer time frames provide the environment for shorter frames; or as Martin & Rose (2007) put it:

…where a culture has arrived in its evolution provides the social context for the linguistic development of the individual, and the point an individual is at in their development provides resources for the instantiation of unfolding text […] Conversely, logogenesis provides the material (i.e. semiotic goods) for
ontogenesis, which in turn provides the material for phylogensis (Martin & Rose, 2007:318).

The concept of logogenesis is relatively more vital to this thesis because the processes of identity construction, communal belonging and self-categorization are explored (in Chapter 5) not only from a synoptic perspective (i.e. what identities and communities are present in a given text or group of texts) but also from a dynamic perspective (how these identities and communities are constructed as we move from one part of the text to the next, and how identity and solidarity are negotiated (i.e. how certain reading positions are naturalized and how readers are aligned or disaligned around certain values and communities during the unfolding of discourse).

2.1.1.6 Social Context and Genre
As mentioned earlier in 2.1.1.1, SFL positions social context above language in the realization hierarchy where the relationship between the two is one of meta-redundancy; i.e. context patterns redound with the redundancy of linguistic ones and language, in turn, “construes, is construed by and (over time) reconstrues social context” (Martin, 1997:4). Furthermore, systemicists such as Halliday, following Malinowki (e.g. 1923), differentiate between context of culture and context of situation. Context of situation is the immediate environment of the text, whereas context of culture is “the environment of the linguistic system” (Halliday, 1996:361). That is, the relationship between the cultural and situational contexts is one of instantiation: “context of culture is the potential; i.e. the system, while context of situation is an instance of that potential” (Hasan, 2009:169). In other words, context of culture is the field, tenor and mode systems; whereas context of situation is the selections from these systems (cf. Martin, 2014). This relationship is diagrammed in Figure 2.1.1.4 below.

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5 I use the terms ‘synoptic’ and ‘dynamic’ in the same sense as in Matthiessen, Teruya & Lam (2010) who explain: “In the synoptic perspective, language is viewed a temporally as either a potential or a product; in the dynamic perspective, it is viewed temporally as a product emerging from the potential. For example, a synoptic analysis of a text in its context of situation presents these as a product of selections from the linguistic and contextual potentials they instantiate. In contrast, a dynamic analysis would present these as unfolding processes of selections from these potentials. A dynamic analysis thus foregrounds the logogenetic view of text.” (p. 211) (see also O'Donnell, 1990)
For Martin (e.g. 1992a; 1997; 1999; Martin & Rose, 2008), however, the social context is re-construed as social semiotic strata of genre and register, where genre is defined as “a staged, goal-oriented social process in which speakers engage as members of a culture” (Martin, 1985:249). This stratified model of social context emerged from the work of Martin and his colleagues and students on modelling registers (e.g. Eggins and Slade, 1997; Martin & Plum, 1997; Ventola, 1987). One key concern of that work was to address Gregory’s concept of ‘functional tenor’, which refers to the social-communicative purposes of using language in a given situation (Gregory & Carroll, 1978), alongside with field, (personal) tenor and mode. Initially, functional tenor was placed “as a deeper variable, since the purpose of a text influenced all of interpersonal, ideational and textual meaning” (Martin, 2014:12). In later work, ‘functional tenor’ was renamed ‘genre’ “to avoid confusion with personal tenor…and to consolidate [its] association with text structure” (Martin, 1999:28); and the relationship between genre and register was reconceptualised in relation to Hjelmslev’s connotative semiotics: systems “whose expression plane is a semiotic” (Hjelmslev, 1961:114). This results in a stratified context plane (diagrammed in Figure 2.1.1.5) where language is the expression plane of register and “register (and thus language) [is] the expression plane of genre” (Martin, 1999:29). Genre, in turn, is the content plane of register as register is the content plane of language. In terms of realization and meta-redundancy, genre “metaredounds with register which in turn

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4 It should be mentioned here that Martin in early works (e.g. 1986) suggests modelling ideology as a stratum above genre and register. However, recently Martin proposes that ideology is an individuation phenomenon, as will be seen in the next section.
metaredundants with language; in other words, genre is a pattern of register patterns just as register represents patterns of language patterns” (p. 39).

Figure 2.1.1.5: Martin’s stratified stratum of social context (Martin, 1997:8)

From a probabilistic view, both genre and register are realized ‘for the most part’ probabilistically, which means considerable individual freedom “in determining just how they are to be realized” (Martin, 2001c:162). Martin exemplifies how genre is realized probabilistically in a narrative as follows:

The Orientation which introduces the characters and sets the story in time and place will tend to include relational clauses (e.g. Once upon a time there was a ... He/she was a ... the cottage faced ...) with associated circumstantial elements. The Complication will then tend to continue with a series of temporally related material processes (She did this and then she did this and then she did ...) leading up to something unexpected - a crisis. At this point the temporal unfolding may be suspended for a moment while the thoughts and feelings of the hero and perhaps another protagonist are explored (He felt ... ; he thought ... ; he said: ‘... ’). Then the Resolution carries on, much like the Complication in its realisation until the problem set up in the story is resolved, for better or worse. Finally, the narrator may comment on the point of telling
the story in a Coda, often using a demonstrative that to refer to the story itself along with some expression of attitude (e.g. That was a really close call).
(Martin, 2001c:161-162)

As Eggins & Slade (1997:235) put it, “realization patterns will differ across genres […and] realization patterns will differ across generic stages”.

Martin (e.g. 1999; 2001a; 2001b) provides a number of motivations for a stratified social context comprising genre and register. First, it fulfils “the need for a multi-functional characterisation of genre” (Martin, 1999:31). Here, Martin’s interstratal model contrasts with e.g. Halliday’s (1978) treatment of genre as only associated with the (rhetorical) mode of a text, Matthiessen’s et al. (2008) treatment of genre as an aspect of field, and Hasan’s Generic Structure Potential (GSP) model of genre (e.g. 1985) in which “obligatory elements of genre structure appear to be determined by field, and the presence of optional ones by tenor and mode” (Martin & Rose, 2007:309). Second, it accounts for (logogenetic) variations in field, tenor and mode from one generic (or schematic) stage to another within a genre, as part of the accomplishment of the social purpose of the text. Third, it addresses the problem of ‘contextual metaphor’ (i.e. the use of one text type to stand for another e.g. a story acting as a scientific explanation). This current study adopts Martin’s model of genre (in Chapter 5) as exploring the logogenetic negotiation of identity, affiliation and positioning readers involves primarily exploring the logogenesis of linguistic patterns—how interpersonal, ideational and logical meanings interact, couple and decouple from one generic stage to another. In Chapter 3, the genre of English editorials and op-eds will be discussed in terms of possible schematic structures and stages.

2.1.1.7 Individuation and affiliation

Individuation is a recently conceptualized hierarchy in SFL that was inspired in part by Bernstein’s concept of coding orientation (e.g. Bernstein, 1990). Individuation is concerned “with the relationship between the reservoir of meanings in a culture and the repertoire a given individual can mobilise” (Martin, 2008b:35), and it is complementary to both instantiation and realization. Whereas instantiation relates

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7 This issue of ‘contextual metaphor’ is one of the reasons Biber differentiates between ‘genre’ and ‘text type’. See in particular Biber (1988:170).
8 ‘Individuation’ is first coined by Matthiessen (2003 cited in Martin, 2008b:35).
9 While Matthiessen’s (2007) conflates individuation and instantiation, Martin (2008a) treats individuation as a separate hierarchy.
linguistic systems to texts (instances), individuation “relates system to repertoires of use” (Martin, 2010:1) shifting “our linguistic lens specifically to the individual and the culture as we analyze a text” (Knight, 2010a:53). The relation between individuation, realization and instantiation is diagrammed in Figure 2.1.1.6.

![Diagram](image)

**Figure 2.1.1.6: Complementarity between the three SFL hierarchies: instantiation, realisation and individuation (Martin, 2008b:37)**

As a cline, then, individuation can be looked at from two directions: from reservoir to repertoire or from repertoire to reservoir, as Martin (2010) explains:

Along the reservoir to repertoire trajectory, we can conceive of a culture dividing into smaller and smaller communities as we move from the community as whole, through master identities (generation, gender, class ethnicity, dis/ability) and sub-cultures to the personas that compose individual members. What we are concerned with here is power, classification and recognition rules – with boundaries between identities. Reversing direction, we can conceive of persona aligning themselves into sub-cultures, configuring
master identities and constituting a culture. Along this trajectory we are concerned with realisation rules, framing and control – with negotiation among and across identities. While individuation is a suitable name for the first trajectory, affiliation seems more appropriate for the second (Martin, 2010:24).

However, as the individuation hierarchy is still less well developed in SFL (Martin, 2008b:32), Martin (cited in Mahboob & Knight, 2008:4) proposes that “our understanding of individuation needs to be elaborated to focus more clearly on identity and affiliation in relation to the rhetorical deployment of appraisal resources”. In response to this proposal, an important contribution to the individuation theory is made by Knight (2010a, 2010b) in her model of affiliation in humour. Knight’s model takes a bottom-up view on individuation, looking “at how personae mobilize social semiotic resources to affiliate with one another” rather than at “how semiotic resources are distributed among users (allocation)” (Martin et al., 2013:469). This model reconceptualises persona and identities in terms of bonds and communities (to which language users characterize themselves as belonging) in terms of bond networks. A bond is defined as “the minimal social unit on the cline and is manifested by a coupling in affiliative negotiations in text” (Knight, 2010b:238). Once a bond is construed as text unfolds, it is connected to a community bond network. Communities, according to Knight (2010b:239) are perceived “as social semiotic systems, constructed by the speakers who bring them to light in discourse and based on the connections between bonds made that constitute them”. Connected bonds that represent a particular community are in turn connected to bonds in higher-level ideological networks; i.e. “communities that are separated by ideological values and their bonds are often not as negotiable” (p. 254). A sketch of Knight’s model of affiliation and bonding is given in Figure 2.1.1.7.
In the affiliation model, the principal kinds of coupling that construe and realize a bond in a community are those of ATTITUDE and experiential entities targeted or triggered by attitudes (the system of ATTITUDE is discussed in section 2.1.2.2.1 below and coupling is discussed in Chapter 3). Through exploring the logogenetic patterns of these couplings, affiliation attempts to describe how bonds are discursively negotiated and, ultimately, to describe “communal identity as discursively negotiated in text” (Knight, 2010b:42). Knight’s model identifies three strategies of negotiating in-group and out-group bonds: communing affiliation, condemning affiliation and laughing affiliation. In communing affiliation[^10], speakers simply share a bond by “presenting an attitude + ideation coupling that construes a single bond around which they can commune” or rally (Knight, 2010a:218). As an example, Figure 2.1.1.8 shows how conversational participants (F, N and C) commune around the bond ‘Fun Pie Party’.

[^10]: This kind of affiliation is based on Stenglin’s (2004) theory of bonding as indicated by Knight (2010b:49)
which is repeatedly construed through the coupling positive appreciation $\gamma$ pie party\footnote{This notation of coupling will be used throughout the thesis. I replace the plus sign with the Greek letter $\gamma$ (gamma) to avoid confusion with positive POLARITY which is often denoted by a plus sign.} experiential entities as the dialogue unfolds.

In condemning affiliation, one participant construes, through a particular evaluative coupling, a threatening or offensive bond that “creates a violation with the bonds shared between the current discourse interactants” and that temporarily prevents the logogenetic process of bonding until it is rejected “in favour of communable bonds” (Knight, 2010b:50). Knight (2010a) exemplifies this strategy of affiliation in the extract given in Figure 2.1.1 below. Here, the bond ‘Destructive Criticism’ that is construed by the coupling negative appreciation $\gamma$ criticism is presented in the conversation by the participant K. This bond is considered threatening among the participants and, therefore, immediately rejected by K and G in favour of the in-group bond ‘Motivating Encouragement’ construed by the evaluative coupling positive appreciation $\gamma$ motivation.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure2.1.1.png}
\caption{Condemning and rejecting the threatening bond ‘Destructive Criticism’ in favour of the communal bond ‘Motivating Encouragement’ (Knight, 2010a:246).}
\end{figure}
The laughing strategy of affiliation is proposed by Knight to account for the affiliative role of laughter in humour discourse. Using this strategy, a bond creating a minor tension—a wrinkle—within a community of speakers is presented by one of the participants in a dialogue. As the bond is non-threatening, it is often taken humorously and is thus ‘laughed off’ (Knight, 2010b:52). The bond in this case is deferred (as an unshared bond) rather than rejected (as an unshareable one). Knight (2010a) exemplifies this strategy in the extract given in Figure 2.1.1.10 below. Here, the bond ‘Happy Fatness’ (construed by the coupling positive appreciation + eating much) is presented by the speakers as something they do not commune around anymore and then deferred in favour of the bond ‘Beautiful Thinness’ (construed by the implicit coupling negative judgment + selves).

![Figure 2.1.1.10: Laughing off the wrinkle caused by the bond ‘Happy Fatness’ which is deferred by participants (Knight, 2010a:226).](image)

Knight’s model of affiliation is particularly relevant to this study as it is concerned with the construction of communal identity in text and corpus, with evaluative couplings as the key linguistic resources for enacting identities, establishing and construing communities and negotiating complex values. In Chapter 5, the model will be effectively implemented to explore the synoptic as well as the dynamic construction and negotiation of identities and communal belonging in editorials and op-eds articles. However, as this model is developed mainly in the context of (spoken) humour discourse, some amendments and assumptions should be made. First, it should be emphasized here that whereas an evaluative coupling still proposes a bond during the instantiation process of a written text, there is no immediate linguistic or paralinguistic evidence that this proposal is communed with, deferred or rejected through e.g. laughter or eye contact (or lack thereof) (Martin et al., 2013). Here, the
notions of ‘compliant’, ‘tactical’ and ‘resistant’ readings are particularly useful. Martin & White (2005) explains

“by a tactical reading we refer to a typically partial and interested reading, which aims to deploy a text for social purposes other than those it has naturalized; resistant readings oppose the reading position naturalized by the co-selection of meanings in a text, while compliant readings subscribe to it” (p. 62)

In terms of bonding, the three types of readings can then be seen as roughly equivalent to the three strategies of affiliation—communing with a bond to compliant reading, deferring to tactical reading and condemning or rejecting to resistant reading. Consequently, in order to simplify the analysis and discussion of bonds in this thesis, it will be assumed that the target readers of editorials are compliant, and, hence, the various bonds proposed through the evaluative couplings are presumably shared and accepted. This will be further discussed in the following chapters.

Second, as a key contribution of this thesis to the understanding of individuation in terms of evaluative language, it will be proposed that Knight’s model can be modified to also account for and explain i) the role of attitudinal and propositional commitment in the process of affiliative negotiation of in-group and out-group bonds, and ii) the ideological constraints imposed by sub-cultural networks on communities. Regarding the first aspect, although Knight (e.g. 2010a:163) explains that implicit couplings (i.e. invoked attitudes targeting experiential entities) are deployed by speakers to negotiate their community membership together; she does not explicitly identify the effect of invocation on the negotiability and core-ness of a given bond within and outside the community. Furthermore, ENGAGEMENT in Knight’s model is treated as an aspect of affording ATTITUDE. However, as shown in Chapter 5, ENGAGEMENT and attitude EXPLICITNESS (discussed in section 2.1.2.2 below) seem to be associated with different kinds of authorial commitment towards a particular value: ENGAGEMENT regulates the degree of propositional commitment surrounding the proposal of a bond whereas EXPLICITNESS controls the degree of attitudinal commitment towards this proposal. Regarding the second aspect, this thesis suggests that a sub-culture bond layer should be added in the cline of affiliation between a community bond network and the ‘master’ ideological network in Figure 2.1.1.7. This
sub-culture layer, as will be elaborated in Chapter 5, can account for the various ideological constraints imposed by a sub-culture on lower-level community ‘shared’ and ‘shareable’ bonds.

2.1.2 Discourse Semantics

This section provides an review of Martin’s discourse semantics systems with a particular focus on the interpersonal discourse system APPRAISAL and the logical CONJUNCTION as these two systems are the most relevant to this study: APPRAISAL analysis identifies how interpersonal meanings in the discourse semantics level interact and couple with other meanings to construct identities and negotiate significant bonds in communities and CONJUNCTION analysis identifies how these interactions are organized logically as discourse unfolds logogenetically. The section begins with a brief review of Halliday & Hasan’s (1979) model of cohesion which comprises five categories: reference, ellipsis, substitution, conjunction and lexical cohesion. Next, the discussion turns to Martin’s reformulation of this model as six discourse systems situated in a stratum above lexicogrammar and below register: IDENTIFICATION, CONJUNCTION, IDEATION, NEGOTIATION, APPRAISAL and PERIODICITY.

2.1.2.1 Texture: from Cohesion to Discourse Semantics

In SFL, text is a ‘semantic unit’: a unit of meaning not of grammar. It is related to other grammatical units such as clauses and clause complexes not by constituency but by realization (Halliday & Hasan, 1979: 2). To distinguish a text from non-text, Halliday & Hasan (1979) introduces the concept of ‘texture’. Texture is a semantic property through which a text is made “into a coherent piece of language, as opposed to simply being an unorganized string of sentences.” (Webster, 2009:7). As mentioned by Eggins (2004:24), texture\(^\text{12}\) involves the interaction of two interrelated components: “coherence, or the text’s relationship to its extra-textual context … and cohesion, the way the elements within a text bind it together as a ‘unified whole’” (p. 24; bold in original). That is, a text must be “coherent with respect to the context of situation and

\(^{12}\) Martin (1992a:382) discusses how the term ‘texture’ is used in different Halliday and Hasan’s papers. For instance, while ‘texture’ covers both register and cohesion in early papers, it becomes more restricted to cohesion and lexicogrammatical systems such as THEME and INFORMATION, in later papers. Furthermore, Halliday & Hasan (1979: 325) point out that coherence is also related to the text macrostructure since it “establishes it as a text of a particular kind – conversation, narrative…”
therefore consistent in register” and it must be “coherent with respect to itself, and therefore cohesive” (Halliday & Hasan, 1979:23).

Although ‘structure’ is one aspect of cohesion in texts; i.e. “the parts of a sentence or a clause obviously ‘cohere’ with each other, by virtue of the structure” (Halliday & Hasan, 1979:6), Halliday and Hasan restrict ‘cohesion’ to non-structural text-forming resources that extend “beyond structural relations” and, thus, “cannot be accounted for in terms of constituency structure” (p. 7). These cohesive resources are organized into five systems: REFERENCE, ELLIPSIS, SUBSTITUTION, CONJUNCTION and LEXICAL COHESION (cf. Gutwinski, 1976). REFERENCE covers resources for referring to entities and elements whose identities are recoverable. Such resources include pronouns, definite articles, demonstrative adverbs, and comparatives. ELLIPSIS refers to omitting some (or all) elements of the clause while SUBSTITUTION refers to replacing the omitted elements with certain wordings (or place holders) such ‘do’ for verbs and ‘one’ for nominal groups. The difference between SUBSTITUTION and REFERENCE, as noticed by Halliday & Hasan (1976), is that SUBSTITUTION is a cohesive “relation in the wording rather than in the meaning” (p. 88). CONJUNCTION includes resources for linking sentences (or clause complexes) to each other. This system includes, to a great extent, non-SFL categories of linkers, connectors, conjunctive adverbials, pragmatic operators, discourse connectives etc. (cf. Biber, 1999; Blakemore, 1987 and 1992; Cowan, 2008; Huddleston & Pullum, 2002). These four grammatical systems of cohesion are complemented by LEXICAL COHESION which concerns relations established between lexical items, including synonymy, repetition, hyponymy, meronymy and collocation (Halliday, 1994:330).

Inspired by the Hartford stratificationalists’ perspective on semantics (Gleason 1968, Gutwinski 1976), Martin (1992a; 2001a) reformulates the five cohesive resources as discourse semantics systems, resulting in “a semantic stratum of text oriented resources dedicated to the analysis of cohesive relations as discourse structure” (Martin, 2001a: 40). The semantic systems\textsuperscript{13} comprise: IDENTIFICATION, CONJUNCTION, IDEATION and NEGOTIATION. IDENTIFICATION subsumes the cohesive system of reference. It is concerned with resources for introducing, identifying and tracking participants. As shown in Figure 2.1.2.1, this system covers two kinds of

\textsuperscript{13} Martin excludes systems of ellipsis and substitution since they are grammatical relations rather than semantic as noted by Halliday & Hasan (1976:88). See Martin (1992a:389).
resources: IDENTIFYING\textsuperscript{14} and TRACKING. The IDENTIFYING system includes choices for presenting and presuming identities of the participants. That is, participants can be either presented in a text for the first time, or presumed; i.e. their identity can be recovered from either inside or outside the text. Presuming identities can be pronominal, through pronouns, or nominal, through names, definite articles or demonstratives. The TRACKING system involves resources for recovering presumed identities. A participant’s identity can be recovered from communal knowledge (homophora), the context of situation (exophora), or the text itself (endophora). Reference to the text can be forward where identities are recoverable from the following co-text (cataphora), or backward from the preceding text (anaphora). Cataphoric reference is either esphoric (i.e. recoverable from the same nominal group\textsuperscript{15}) or not. Anaphoric reference is either direct (i.e. explicitly presented) or inferred (bridging)\textsuperscript{16}.

![Diagram](image.png)

Figure 2.1.2.1: IDENTIFICATION systems (Martin & Rose, 2007:183)

\textsuperscript{14} The original name of the subsystem as in Martin & Rose (2003:182) is identification. To avoid confusion with the overall system of IDENTIFICATION, I use the name 'IDENTIFYING' instead.

\textsuperscript{15} Halliday and Hasan (1976:82) uses the term ‘structural cataphora’ instead of ‘esphora’.

\textsuperscript{16} ‘bridging’ is not included in Halliday & Hasan’s (1976) system of REFERENCE. It is first introduced by Clark & Haviland (1977); see also Martin (1992a:124).
Another discourse semantics system in Martin’s model is CONJUNCTION. It is concerned with the logic of discourse: resources for connecting different parts of text in a meaningful and logical way. This system is organized in terms of four dimensions: type of conjunctive relation (addition, comparison, time or consequence), type of dependency (hypotactic, paratactic or cohesive), explicitness of conjunctive relation (explicit or implicit), and orientation (internal or external). There are three main differences between Martin’s model and Halliday & Hasan’s approach to conjunction. First, following Gutwinski (1976), Martin includes in this system all conjunctive relations whether they occur between clauses (structural or subordinating) or between sentences (cohesive or non-subordinating), as clearly reflected in the type of dependency dimension (Martin, 1983). Second, Martin (1992a:177) re-organizes ‘adversatives’ as ‘alternatives’ under the ‘addition’ type, and as ‘causal concessives’ under the ‘consequence’ type. Third, Martin (1983) distinguishes between whether a conjunctive relation is explicitly realized by a conjunctive expression (e.g. however) or implicitly abduced from other meanings present in the co-text\(^\dagger\). Because of its immediate relevance to this thesis, CONJUNCTION will be further discussed in section 2.1.2.3 below.

In addition to Halliday & Hasan’s lexical cohesion systems, IDEATION covers resources for organizing and construing the field of discourse through activity sequences and taxonomic relations within and beyond the clause. It consists of three subsystems as shown in Figure 2.1.2. The first system, TAXONOMIC RELATIONS, concerns relations between elements from one clause to another as a text unfolds. These relations are of five types: repetition, synonymy, contrast (oppositions/series), class (class-member/co-class) and part (whole-part/co-part). The NUCLEAR RELATIONS system describes possible configurations of participants, processes and circumstantial elements within a clause. The ACTIVITY SEQUENCES system is concerned with the analysis of field as “recurrent sequences of activities” (Martin & Rose, 2007:101). Such variations in sequences can highlight shifts of ‘expectancy’ from a phase to the next, while breaks between taxonomic relations can show the boundaries of each phase (Martin & Rose, 2007:105).

\(^\dagger\) It should be noted that later work of Halliday (e.g. 1985:308; 1994:327) recognizes that conjunction can be implicit as well as explicit.
Martin (1992a) also extends earlier systems of cohesion by including NEGOTIATION\textsuperscript{18} which re-interprets the grammatical systems of MOOD, ELLIPSIS and SUBSTITUTION “from a discourse perspective as a resource for negotiating meaning in dialogue” (Martin, 1992a:31). This system is built upon earlier work on conversation and spoken discourse analysis (e.g. Sinclair & Coulthard, 1975\textsuperscript{19}; Berry, 1981; Ventola, 1987), “but with a stronger grammatical orientation” (Martin, 2002:55). NEGOTIATION takes as its starting point the system of MOOD which is concerned with the lexicogrammatical realizations of speech functions and moves (e.g. giving information, demanding goods & services). In the discourse semantics, the SPEECH FUNCTION system (Figure 2.1.2.3a) aims to “explore the relationship between moves and” their congruent as well as incongruent realizations in MOOD (Martin & Rose, 2007:251). Situated above SPEECH FUNCTION, NEGOTIATION includes resources for sequencing moves, allowing for exchanges between one to five moves as shown in Figure 2.1.2.3b. These exchanges are of two major types: knowledge exchanges or action ones. For instance, the following spoken extracts, exemplify a basic knowledge exchange (a) and an action exchange (b).

\begin{enumerate}
\item[a)]

\textit{Convenor:} So did you commit the offences you are charged with?

\textit{Young person:} - Yes.

\item[b)]

\end{enumerate}

\textsuperscript{18} As noted by Martin (1992a: 389), Halliday and Hasan treat this system as “an aspect of register rather than language”. However, he argues that NEGOTIATION needs to be interpreted as a discourse semantic system in language (p. 390).

\textsuperscript{19} Butler (1985) also re-examine Sinclair & Coulthard’s (1975) work from a systemic perspective.
Convenor: *I need you to speak a bit louder.*

Young person: *OK.*

(Martin, Zappavigna and Dwyer, 2009: 47)

In the knowledge exchange, the convenor acts as the secondary knower (i.e. the person requesting confirmation) and the young person’s role is a primary knower (i.e. the one responsible for the validity of information). In the action exchange, the convenor’s role is the secondary actor (i.e. receiving good and services) and the young person’s role is the primary actor (i.e. handing over goods or performing services). These simple sequences can be interrupted, however, by, for example, refusing to confirm K2’s request in (a). Furthermore, a sequence of two or more moves can form what Ventola (1987) refers to as a move complex. In such a move complex, the relationship between moves can be described using one of the logico-semantic relations described in, e.g., Halliday (1995). Thus, NEGOTIATION also accounts for tracking and challenging exchanges, in addition to the analysis of move complexes (Martin, 1992a:67).

![Figure 2.1.2.3: a) SPEECH FUNCTION system (Martin & Rose, 2007:252); b) NEGOTIATION system (p.240)](image)

Later works on discourse semantics (e.g. Martin, 1992b; Martin, 1995a; Martin, 2000a; Martin & Rose, 2003; Martin & White, 2005) also include two further systems,
APPRAISAL and PERIODICITY\(^{20}\). APPRAISAL is proposed as a complementary system to NEGOTIATION and it concerns the semantics of evaluation as will be detailed in Section 2.1.2.2 below. PERIODICITY covers resources for regulating the flow of information in discourse---the ways “in which meanings are packaged to make it easier for us to take them in” (Martin & Rose, 2003:175). This semantic packaging takes as its point of departure two textual systems in the grammar: THEME and INFORMATION. These two systems are concerned with peaks of prominence located at the beginning (thematic prominence) and the end (information focus) of the English clause. The thematic prominence in a sequence of clauses results

> “in a kind of periodicity, a movement from a clause-initial peak via an off-peak medial state to a clause-final peak which is then sustained to form the initial peak of the text semantics and clause grammar succeeding clause.”
>
> (Halliday, 1981: 36, emphasis mine)

PERIODICITY attends to a text’s method of development and thematic progression: the way in which Theme contributes to the creation of texture and cohesion of the text (see e.g. Daneš, 1974; Fries, 1983; Martin, 1992a & 1992b; Crompton, 2004). Another kind of PERIODICITY is related to the information focus of the clause, as it is concerned with the accumulation of news as the text unfolds. This kind of periodicity (point in Martin’s terms) is complementary to thematic method of development; i.e. whereas “Theme ties the text down, point elaborates it, developing it as news” or in other words, “method of development is where a text is coming from; point is where it’s going to” (Martin, 1992a:489).

Here, the metaphor of ‘wave’ is particularly useful to capture the complementarity, and the interaction, between both kinds of periodicity. Beyond the clause, Martin & Rose (2003:175) refine Pike’s (1982) description of the flow of textual meanings as a hierarchy of little and bigger waves, by introducing the concept of hierarchies of periodicity. A hierarchy of periodicity is constructed in discourse through different layers of Themes and News. As shown in Figure 2.1.2.4, higher layers of periodicity involve macro- and hyper-Themes and News. In each phase of discourse, a hyper-Theme predicts what will happen whereas a hyper-New distils the

\(^{20}\) In fact, earlier work by Martin (e.g. 1992a) discusses PERIODICITY as an aspect of texture and AFFECT (a system of appraisal) as a dimension of the tenor variable.
accumulation of News. At a higher level, macro-Themes predict hyper-Themes while macro-News distil hyper-News. As Martin (1992b:159) notes, a periodicity hierarchy is infinitely expandable since Theme and New at any layer predicts and consolidates Themes and News at lower layers. Dynamically, each layer can be thought of as a series of ‘waves’ whose peaks and troughs are determined by conflation (or lack thereof) between Themes and News (Rose, 2004:530). Furthermore, from a logogenetic perspective, the relative positions of higher Themes and News in phases, and larger stretches of discourse, reflect those in English clauses; i.e. hyper-Themes occur at the beginning of a phase or paragraph, macro-Themes at the beginning of a text (or a group of phases) and so on. Thus, Theme layers, due to the early predictive function they serve, tend to organize the schematic structure of genre, whereas News layers are “more concerned with elaborating field” (Martin, 1992b:78).

![Figure 2.1.2.4: Layers of Themes and News in Discourse (Martin & Rose, 2007:199)](image)

Finally, it should be mentioned that Martin’s reworking of cohesive resources as discourse semantic systems is motivated by two considerations. First, positioning cohesive resources in a stratified content plane above lexicogrammar enables them to function “as an interface between context and grammar” (Martin, 1992a:403). Consequently, the discourse semantics stratum can “have its own metafunctional organisation, reflecting both the organisation of the lexicogrammatical resources realising its meanings as well as the organisation of context into the register variables, tenor, mode and field…” (Martin, 1992a:403). This contrasts with Halliday’s treatment of cohesion as serving a textual function in the lexicogrammar (e.g. Halliday & Matthiessen, 2004:532). In Martin’s model, each discourse system is associated with a

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21 Here a hyper-Theme is equivalent to a topic sentence whereas a macro-Theme is correlated with the introductory paragraph of school rhetoric as noted by Martin (1992a:437)
metafunction; NEGOTIATION and APPRAISAL with interpersonal meanings, IDEATION with experiential meanings, CONJUNCTION with logical meanings, and IDENTIFICATION and PERIODICITY with textual meanings.

Second, Halliday & Hasan’s (1974:21) organization of cohesion systems as parallel to the grammatical systems of THEME and INFORMATION implies, from a syntagmatic perspective, that cohesive relations are describable by univariate or multivariate models. However, whereas some cohesive relations can be described by univariate or multivariate structures, some others seem to involve another kind of structure (Martin, 1992a:23). For instance, in the reference cohesive chain: *a robot – the android – it*, the item *the android* is both presuming (w.r.t. *a robot*) and presumed (w.r.t. *it*). That is, this item is both dependent (on the item *a robot*) and being depended upon (by the item *it*) (p.24). Following Lemke (1983 & 1985), Martin refers to this kind of interdependency, where a dependent item have the potential to be depended on, as covariate. These covariate structures, as argued by Martin (1992a), are the main “resource used by the discourse semantics for constructing text” (p.25).

2.1.2.2 Appraisal

APPRAISAL emerges from work conducted by Martin and his colleagues on narratives (e.g. Martin & Plum, 1997), secondary school and workplace discourse (e.g. Martin, 1995; Martin & Veel, 1998) and media discourse (Iedema, Feez & White, 1997). Their work indicates that “in order to deal with the texture of evaluation” and the contribution of evaluative meanings to the coherence of texts, the focus needs to be shifted from the interpersonal grammar of SPEECH FUNCTION and NEGOTIATION to the personal lexis (Martin, 2004b:272): from the negotiation “of goods and services or information, to the negotiation of feeling” (Martin & Hood, 2007:739). These evaluative lexical resources are situated in the discourse semantics level under two interpersonal systems: INVolVEMENT and APPRAISAL. INVolVEMENT focuses on non-gradable lexis and it includes resources such as naming, technicality, swearing, anti-language etc. (see e.g. Poynton, 1984). APPRAISAL, on the other hand, focuses on gradable lexis, or as Thornbury & Slade (2006) put it, “a cline from negative to positive … open to negotiation” (p. 69). Both systems complement the previously
discussed NEGOTIATION systems by interacting with the power and solidarity dimensions of tenor as diagrammed in Figure 2.1.2.5.

![Diagram of interpersonal discourse semantics systems and tenor](image)

Figure 2.1.2.5: interpersonal discourse semantics systems and tenor (adapted from Martin & White, 2005:34)

More particularly, the APPRAISAL framework is concerned with,

“the subjective presence of writers/speakers in texts as they adopt stances towards both the material they present and those with whom they communicate … with how writers/speakers approve and disapprove, enthuse and abhor, applaud and criticise … with how they position their readers/listeners to do likewise … with the linguistic mechanisms for the sharing of emotions, tastes and normative assessments … with how writers/speakers construe for themselves particular authorial identities or personae, with how they align or disalign themselves with actual or potential respondents, and with how they construct for their texts an intended or ideal audience.”

(Martin & White, 2005:1)

The various regions covered by APPRAISAL directly intersect with non-SFL notions of subjectivity (Banfield, 1982; Stein & Wright, 2005), epistemic and attitudinal stance
(Biber & Finegan, 1988), modality (Palmer, 1986), evidentiality (Chafe & Nicholas, 1986), affect (Batson, Shaw & Oleso, 1992), interpersonal (and a sub-set of textual) metadiscourse markers (Crismore, Markkanen & Steffenson, 1993; Hyland, 1998; Ifantidou, 2005), and intensity (Labov, 1984), to mention but a few. As a discourse semantics system, APPRAISAL organizes evaluative resources into three subsystems: ATTITUDE, ENGAGEMENT and GRADUATION, as discussed in the following subsections.

2.1.2.2.1 Attitude
ATTITUDE deals with our feelings and evaluations of people and things, and it consists of three systems: AFFECT, JUDGMENT and APPRECIATION. AFFECT covers resources for construing emotions such as happiness, fear and boredom. JUDGMENT is concerned with resources for evaluating people’s character (e.g. intelligence, kindness, loyalty, trustworthiness). APPRECIATION includes resources for evaluating phenomena, including their value, worth, complexity and quality. Both JUDGMENT and APPRECIATION in a sense encode feelings, and can be seen as recontextualizations of AFFECT: “as JUDGMENT, AFFECT is recontextualized as an evaluation matrix of behaviour… As APPRECIATION, AFFECT is recontextualized as an evaluation matrix for the products of behaviour…” (Martin, 2000a: 147). However, while AFFECT is oriented towards the appraiser (i.e. the emitter of feelings), JUDGMENT and APPRECIATION are oriented towards the appraised (i.e. the target entity of the evaluation (White & Don, 2012)).

All three systems of ATTITUDE are further classified along four main dimensions: TYPE, POLARITY, and EXPPLICITNESS. The system of TYPE differentiates between various delicate categories of each ATTITUDE subsystem. POLARITY (or ORIENTATION) classifies attitudes into either positive (e.g. happiness) or negative (e.g. sadness). EXPPLICITNESS differentiates between inscriptions of attitude and invocations. Attitudes are inscribed if their evaluative value is construed explicitly (e.g. happy); attitudinal invocations are realized indirectly by either ideational tokens (invite), especially if graded (flag), or by certain types of lexical metaphor and idioms (provoke) (Martin & White, 2005:65; Hood & Martin, 2007). Attitudinal invocations

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22 For a brief discussion of some of these notions in relation to appraisal see Monika, 2006: chap. 3.
23 Note that Martin (2000a:149) and Martin & White (2005:46-49) provide more dimensions for classifying AFFECT. However, the focus of this section is on those dimensions that are generalizable for all three types of ATTITUDE.
also include double-coded attitudes (e.g. inscribed appreciation invoking affect or judgment as in *what a boring song* or inscribed affect invoking judgment as in *I don’t feel safe when he drives*). These four dimensions of classifying attitudes are outlined in Figure 2.1.2.6.

![Diagram of attitude subsystems](image)

**Figure 2.1.2.6: ATTITUDE subsystems**

Along the TYPE and POLARITY dimensions, AFFECT is further subdivided into eight types: dis/satisfaction, dis/inclination, un/happiness and in/security. Dis/satisfaction covers positive feelings of interest and pleasure (e.g. *attentive, pleased, absorbed, and satisfied*) and negative feelings of ennui and displeasure (e.g. *stale, flat, tune out, angry*). Dis/inclination deals with emotions of desire and fear24 (or non-desire), e.g. *miss, long for, want*. Un/happiness covers basic feelings of cheer and affection (e.g. *happy, love, laugh, cheerful*) as well as misery and antipathy (e.g. *sad, cry, wail, hate, dislike*). Finally, in/security includes positive emotions of confidence.

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24 Bednarek’s (2008:165) suggests that ‘fear’ should be under ‘insecurity: disquiet’ rather than disinclination. Martin (2013) points out that the distinction in dis/inclination is “between emotional reactions to things we want to happen and things we don’t” not between the grammatical positive and negative in the grammar of MOOD.
and trust (e.g. assured, entrust, comfortable, confident) and negative feelings of disquiet and surprise\textsuperscript{25} (e.g. anxious, shaking, startled, faint).

Similarly, the TYPE and POLARITY dimensions result in five positive categories of JUDGMENT: normality, capacity, tenacity, veracity and propriety\textsuperscript{26} in addition to five negative counterparts. Normality is about how special a person is, and it covers positive qualities such as luckiness, fortunateness, stability and negative qualities such as oddness, peculiarity, instability and unfortunateness. Capacity covers positive and negative evaluations of human capabilities, e.g. powerful, mature, clever, weak, stupid, and wimpy. Tenacity is concerned with human traits of resoluteness, bravery and reliability, e.g. brave, tireless, heroic, cowardly, unreliable, and disloyal. Veracity deals with honesty, credibility, discreetness and trustworthiness (e.g. honest, candid, direct, discrete, deceitful, devious), whereas propriety concerns morality, fairness, kindness, respectfulness and generosity (e.g. moral, kind, caring, polite, charitable, evil, unjust, arrogant, selfish, rude). As pointed out by Martin (1995a), these five categories of JUDGMENT are based upon Halliday’s account of English modality: normality (on usuality), capacity (ability), tenacity (inclination), veracity (probability), and propriety (obligation). Furthermore, work on media discourse (e.g. Feez, Iedema & White: 2007) suggests that judgment resources can be re-grouped under two main categories: social-esteem (which includes normality, capacity and tenacity) and social-sanction (veracity and propriety). Social-esteem judgments “tend to be policed in the oral culture” (e.g. chat and humour, as “sharing values in this area is critical to the formation of social networks” (Martin & White, 2005:52). Judgments of social-sanction are rather regulated by law and religion, and thus “sharing values in this area underpins civil duty and religious observances” (Martin & White, 2005:52).

Finally, more delicate APPRECIATION is classified into three categories: reaction, composition, valuation. Reaction appreciations are concerned with the positive/negative emotional impact of a thing/object on us (‘did it grab me? e.g. arresting, fascinating, remarkable; dull, boring, flat), and whether it captures our attention (‘did I like it? e.g. fine, lovely, beautiful, appealing; bad, plain, ugly, off-

\textsuperscript{25} Bednarek (2008:160) argues that ‘surprise’ is rather neutral and thus shouldn’t be treated as a subcategory of insecurity, but a separate category per se. Accordingly, she re-classifies insecurity as ‘disquiet’ and ‘distrust’. Martin (2013) objects that the corpus evidence provided for this treatment is insufficient as Bednarek’s (2008) focus was on one possible realisation (i.e. the lexical item ‘surprising’) of the semantic category ‘surprise’.

\textsuperscript{26} Early labels of judgment are fate (for normality), resolve (for tenacity), truth (for veracity) and ethics (for propriety). See e.g. Martin (1995a).
Composition appreciations are about evaluations of the balance (‘did it hang together?’; e.g. consistent, logical, proportioned; irregular, contradictory, distorted) and complexity (‘was it hard to follow?’; e.g. simple, elegant, detailed; simplistic, unclear, extravagant) of things under consideration. Valuations are about our assessments of the value and worthiness of things (‘was it worthwhile?’; e.g. original, creative, exceptional, helpful, effective; insignificant, dated, fake, useless). From a grammatical perspective, Eggins (in Martin & White, 2005: 57) notes that the three types of appreciation are related to the kinds of mental processing suggested by Halliday (e.g. 1994:118) as follows: reaction to affection, composition to perception and valuation to cognition. From a metafunctional perspective, appreciation:valuation is more related to field and ideational meanings since the valuation of things and processes is “for the most part institutionally specific” (Martin, 1997:25).

Appreciation:composition, on the other hand, is more oriented to the textual metafunction since the properties of ‘hanging together’ and ‘intelligibility’ are dimensions of texture. Appreciation:reaction is associated with interpersonal meanings as reactions towards things are emotionally triggered. Within the system of ATTITUDE, appreciation:reaction can be linked to AFFECT topologically (Bednarek, 2009; Martin, 2000a); both deal with emotions, but, unlike affect, reaction foregrounds the Trigger of emotion rather than the Emoter.27 VALUATION and COMPOSITION, by contrast, can be related to JUDGMENT, particularly of capacity, since the value, complexity or balance of a product often implies how skilful or capable its producer is. For example, in this is a valid argument or this is a useful suggestion, the positive appreciation:composition in the former and the positive appreciation:evaluation in the latter imply positive capacity.

2.1.2.2.2 Engagement

While ATTITUDE deals with our emotions towards and evaluations of people and things, ENGAGEMENT is concerned with evaluations of propositions and proposals, sourcing of these evaluations, acknowledgment of other voices, and resources for stancetaking and intersubjective positioning in addition to the rhetorical effects of different positionings.

27 In some cases, however, it may not be as clear whether an instance foregrounds an Emoter (and thus it is affect) or a Trigger (and therefore it is appreciation), e.g. it is a surprise to me that Jim didn’t come. In this thesis, following Martin & White (2005), such instances will be treated as appreciation. Alternatively, Bednarek (2006: 92) suggests that they can be treated as a distinct category between affect and appreciation (covert affect).
ENGAGEMENT is fundamentally informed by Bakhtain’s notions of dialogism and heteroglossia (see Bakhtin, 1981; Vološinov, 1986; Holquist, 1990). For Bakhtin, any utterance brings to the text the social and cultural history of all relevant utterances (Bakhtin, 1981:354-355). Consequently, all linguistic utterances are intrinsically dialogic “in that to speak or write is always to refer to, or to take up in some way what has been said/written before, and simultaneously to anticipate the responses of actual, potential or imagined readers/listeners” (White, 2003:261). From such a dialogistic perspective, ENGAGEMENT provides a systematic way “

to characterise a speaker/writer’s interpersonal style and their rhetorical strategies according to what sort of heteroglossic backdrop of other voices and alternative viewpoints they construct for their text and according to the way in which they engage with that backdrop.” (Martin & White, 2005:93)

At the least delicate level, the system of ENGAGEMENT distinguishes between bare assertions and utterances that do not overtly recognize alternative voices, positions and viewpoints (‘undialogised’ or ‘monoglossic’ in Bakhtin’s terms) and those that do (‘heteroglossic’). A monoglossic proposition is one presented as a given, non-negotiable, unproblematic fact. As noted by White (2002), monoglossic utterances interact with both solidarity and power (variables of tenor; see section 2.1.2 above). In case of solidarity, the writer/speaker construes an ideal reader who is “assumed to operate with the same knowledge, beliefs and values as those relied upon by the proposition” (White, 2002: 263). In case of power, the authorial voice “assumes sufficient status or moral authority to be able to exclude alternative viewpoints” (Miller, 2002: 45)28. Heteroglossia, by contrast, allow for alternative voices and positions. Heteroglossic resources fall into two broad categories: dialogic expansion and dialogic contraction. Expansive resources open up (and expand) the dialogic space, while contractive resources act “to challenge, fend off or restrict” it (Martin & White: 2005: 102).

Dialogically expansive ENGAGEMENT is further classified into: entertain and attribute. Entertain includes wordings through which the author presents his/her

28 Note that Martin & White (2005:100) also differentiate between two types of monoglossic assertions: taken-for-granted and at-issue.
proposition as one among possible alternatives. These wordings encompass what is traditionally discussed under the headings of ‘epistemic’ and ‘evidential’ modality (e.g. Lyons, 1977, Palmer, 1981:153) and certain types of pragmatic hedges29 (Brown & Levinson, 1978; Prince, Frader & Bosk, 1982; Lakoff 1973 & 1975). In SFL, wordings of implicit and explicit modality (e.g. *it is probable, possibly, may, could, must, would, I think, I suspect, I believe, in my view* etc. Halliday & Mathiessen, 2004:626) fall under this category of engagement. White (2003) and Martin & White (2005) also consider evidentials (e.g. *it seems, it appears, apparently, the evidence suggests*), authorial hearsay30 (e.g. *I hear*), and certain types of rhetorical questions (known as expository questions31) as realizations of engagement:entertain. As far as tenor relations are concerned, entertaining engagement utterances “project for the text an audience which is potentially divided over the issue at stake” and “by recognizing … alternative viewpoints … they provide for the possibility of solidarity with those who hold to alternative positions” (Martin & White, 2005: 108-109).

The attribution category of expansive engagement deals with “formulations that disassociate the proposition from the text’s internal authorial voice by attributing it to some external source” (Martin & White, 2005:111). These formulations include reporting verbs (e.g. *say, claim, believe, argue, discuss*) and their nominalisations (e.g. *X’s statement, belief, assertion, argument*) as well as what Halliday (1994: 151) and Halliday & Matthiessen (2004:263) call circumstances of angle (e.g. *according to, in the words of, in the view of*). Attributions are further divided into two sub-categories: acknowledge and distance. The distinction is based upon whether the authorial voice overtly distances itself from the attributed proposition or the author’s position towards the quoted material is not made explicit (acknowledge). Distancing engagement is typically realized by the verb ‘claim’ (and its synonyms e.g. *allege*) and by certain kinds of scare/alert quotes (as in e.g. *the collateral damage in Bush’s ‘war on terror’*).

Furthermore, the kind of source to which a proposition is attributed can be an indication to the authorial position with respect to the proposition. For example, attributing a proposition to a high-credibility source (which is field-sensitive e.g. 29 Most notably, a type of hedging referred to by Prince, Frader & Bosk (1982) as ‘shields’. 30 While White (2003:282) treats hearsays as entertaining engagement, Martin & White (2005:112) include them under attribute:acknowledge. In this thesis, I will differentiate between authorial hearsays (e.g. *I hear*) and non-authorial hearsays (e.g. it is said…, it is rumoured). The former will be treated as engagement:entertain and the latter as attribute:acknowledge. This is comparable to the difference between *I believe, in my view* etc. which are treated as entertaining utterances in Martin & White (2005: 111) and Halliday believes, in Dawkin’s view which are given as examples of attribute:acknowledge. 31 Goatly (2000:89) differentiates between ‘expository questions’ (those that “the writer himself goes on to answer”) and rhetorical questions (those that “do not demand an answer”).
Mandela in politics, Halliday in systemic grammar, Chomsky in transformational grammar, Stephen Hawking in physics etc.) may suggest that the author stands for this proposition. Conversely, low-credibility (e.g. Bush in foreign policy discourse or Saddam in peace discourse) may indicate distancing engagement, as noted by Miller (2004). In the same vein, Hood (2004) points out that acknowledging and distancing engagements can be invoked by graduation resources (graduation will be discussed in the following section). For example, the use of down-scaling quantifications in only a few scientists believe... and a small number of studies state... can weaken the credibility of the propositions, and thus signify a distancing engagement.

While expansive engagement opens up the dialogic space, contractive engagement narrows it down “by excluding certain dialogic alternatives” or by “constraining the scope of these alternatives” as the text unfolds (Martin & White, 2005:117). Contractive resources are further categorized into disclaim and proclaim. Disclaim engagement includes formulations through which alternative voices are recognized and then either explicitly rejected and declared invalid (denied) or superseded by another proposition (countered). Denials are typically\textsuperscript{32} achieved by grammatical negation (not, didn’t, hasn’t, no, never, none, nobody, nothing)\textsuperscript{33}. A denied proposition is dialogic since it “acts to invoke or activate the positive” view (White, 2003:271). In terms of the writer-reader relationship, a denial indicates a disalignment with the alternative view, and thus aligns the reader into an opposite position. In some contexts, denials present the authorial voice as an expert “acting to correct some misunderstanding or misconception on the addressee’s part” and, therefore, function as “corrective rather than confrontational” (Martin & White, 2005:120).

Disclaim counters do not explicitly rule out a non-authorial proposition, but present an authorial one as a better, more valid alternative. Countering realizations include a sub-class of conjunctions (e.g. although, but, however, yet), certain comment adjuncts (e.g. amazingly, surprisingly), and continuatives (e.g. even, still, just, only; see Martin & Rose, 2007:141). Counters often tend to align the reader with the authorial perspective and expectation: “the writer is presented as just as surprised by

\textsuperscript{32} Note that Hood (2004: 207) treats some evaluative verbs (e.g. failed to) as denials. However, in this thesis, such lexical items will be analysed as monoglossic negative capacity rather than engagement:deny.

\textsuperscript{33} Morphological negation (e.g. un-, ir-, dis-) is not included under engagement denials since “it is not arguable … it is realized lexically outside Halliday’s Mood function” (Martin & White, 2005:73).
this ‘exceptional’ case as it is assumed the reader will be” (Martin & White, 2005: 121). As far as tenor relations are concerned, what at risk here is solidarity with readers who happen to not share the authorial amazement and expectations.

The proclamation category of contractive ENGAGEMENT deals with formulations which covertly limit the space for dialogistic alternatives through “some authorial interpolation, emphasis or intervention” (Martin & White, 2005: 118). Proclamation has three distinct modes: concurrence, endorsement and pronouncement. Concurrence involves formulation through which the authorial voice explicitly positions itself as aligned with a putative reader, as sharing the same knowledge, beliefs and attitudes. Concurrence is lexically expressed by such locutions as naturally, admittedly, certainly, of course, obviously, undoubtedly and so on. Furthermore, concurrences can be conveyed by means of ‘leading’ or ‘conductive’ questions, a subclass of rhetorical questions that suggest one inevitable answer, e.g. Do you want to live healthy?, would you do whatever you can to protect your kids? etc. (for possible rhetorical effects of leading questions in argumentative discourse see e.g. Ilie, 1994:55; Piazza, 2002). Concurrences are often combined with counters, e.g. admittedy...but; of course he is... however; forming a rhetorical pair (concede) that is not uncommon in argumentative texts (Martin & White, 2005: 124). This pair (concur/affirm + counter) is one example of simple rhetorical sequencing and commonly discussed in discourse and rhetorical studies, particularly in the Rhetorical Structure theory (e.g. Barth-Weingarten, 2003:12; Taboada & Mann, 2006). They play an important role in re-aligning a resistant reader by first validating his/her contrary view (affirm), and then rejecting its expected implications (counter).

Endorsement is similar to acknowledgement in that a proposition is attributed to an external source, but with a covert authorial intervention through which the proposition is construed as valid and undeniable. Such intervention is achieved via the use of a subclass of verbs known as ‘factive’ such as find, confirm, demonstrate, show, reveal, observe (for a discussion of different rhetorical effects of these verbs see e.g. Lewin, Fine & Young, 2001). As a rhetorical strategy, endorsement simultaneously precludes alternative viewpoints and holds the author, instead of the external source, responsible for the validity of a proposition. As observed by White (2003:270), further propositional responsibility can be annexed to the authorial voice by coupling
endorsements with attitudes of e.g. judgment:capacity or appreciation as in the study convincingly argues, compellingly shows, he successfully explains.

The pronounce subcategory of proclamation deals with formulations involving overt authorial intervention or emphases. Examples of such formulations include the facts of the matter are ..., you must agree that..., we know that..., I contend..., we can only conclude that ..., the truth of the matter is ..., it is absolutely clear to me..., it may be fairly argued..., needless to say that ..., we have to admit..., in addition to clausal-scope intensifiers such as indeed, really and so forth. As explained by Martin & White (2005), these locutions constitute “an interpolation of the authorial presence so as to assert or insist upon the value or warrantability of the proposition” (p. 128). Pronouncements are dialogistic as they recognize alternative views, and, through authorial emphases, they defy and oppose these alternatives. This can influence solidarity with the reader in a variety of ways, depending on whether the value position being opposed is likely to be held by the construed reader or held by a third party. In the former case, endorsement can pose a direct threat to solidarity, whereas in the latter, solidarity is further strengthened given that the reader shares the same opposition (see e.g. White, 1997:89 and White, 2012:66).

The system of ENGAGEMENT discussed in this section is outlined in Figure 2.1.2.7 below.
2.1.2.2.3 Graduation

In general, evaluative lexis, be it in the form of adjective, adverb, noun or verb, has the distinctive feature of being ‘gradable’ (see e.g. Bierwisch, 1989:199; Klein, 1980; Lyons, 1977:279; Lyons, 1995:128; Sapir, 1944). As mentioned earlier, APPRAISAL is more concerned with ‘gradable’ meanings. In case of ATTITUDE, ‘gradability’ is already encoded in the system of INTENSITY, e.g. happy vs. very happy or happy vs. ecstatic. In case of ENGAGEMENT, ‘gradability’ is particularly evident in modality of entertaining engagement, e.g. possibly vs. definitely, may vs. must, I suspect vs. I believe. Other types of ENGAGEMENT also show gradable properties, e.g. he suggests vs. he insists [attribute], I contend vs. I insist [pronounce], I didn’t vs. I never [deny] and so forth. Since ‘gradability’ is a central feature of APPRAISAL systems, both ATTITUDE and ENGAGEMENT can be thought of as “domains of graduation” (Martin & White, 2005:136).

The GRADUATION system is thus concerned with resources for scaling up or down attitudinal and intersubjective meanings. These resources are categorized according to three major dimensions: TYPE of scalability and DIRECTION. TYPE
classifies graduations into **FORCE** and **FOCUS**. **FORCE** deals with resources for increasing and decreasing intensity or quantity, and consequently is classified into force: intensification and force: quantification. Intensifying\(^{34}\) graduation can operate on either processes (e.g. *it slightly upsets me, it totally confused me*) or qualities (e.g. *deeply depressed, great happiness*). Quantification can be of either number (e.g. *many, a few, a small number of*), mass (e.g. *small, large, huge, a mountain of...*) or extent (of time e.g. *recent, ancient, long-lasting* or place e.g. *nearby, distant, wide-spread, narrowly-based*). Force can be realized either by isolated lexical items (e.g. *very, slightly, small, many, recent*) or by semantic infusion (e.g. *kill/slay, cry/scream, intelligent/genius, a throng of..., a stream of..., a slip of a girl*). Furthermore, **FORCE** can be realized either non-figuratively (e.g. *very clear, too cold, extremely vigorous*) or figuratively (e.g. *crystal clear, ice cold, like a jack in the box*). It is also typical that intensifying graduations involve ‘lexicalization’ when an item conveys meanings rather than increasing or decreasing intensity. For example, in *amazingly easy, dreadfully heavy, moved rapidly* the adverbs *amazingly* and *dreadfully* have attitudinal meanings (of affect and reaction) in addition to intensifying the quality of being *easy* and *heavy*. By the same token, the adverb *rapidly* describes the speed of movement alongside intensifying this process (Martin & White, 2005: 148).

In contrast with **FORCE**, **FOCUS** acts upon non-attitudinal, non-gradable entities in such a way as to fine-tune “the value of experiential meanings – either to strengthen [**sharpen**] or weaken [**soften**] categorization” (Martin, 2004a:326). In other words, focus is graduation through entity ‘prototypicality’: scaling up or down the degree to which an entity belongs an experiential category. By sharpening, an entity is represented as highly prototypical. For example, in expressions such as *X is a real man*, *X is a true player*, *X is made of genuine leather*, the entity *X* is re-construed as a *real, true and genuine* prototype of the categories *men, players and leather*, respectively. Softening graduations have the opposite effect by representing an entity as “lying on the outer margins of the category” (Martin & White, 2005:137). For instance, in *an apology of sorts, X is red-ish, X is an adverb, kind of*, the entity *X* is portrayed as an atypical exemplar of the sets: *apologies, red things, and adverbs*. As noted by Martin & Rose (2003), sharpening often invokes positive attitudes (e.g. *a true man* may invoke positive judgment) whereas softening implies negative attitudes (e.g.

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\(^{34}\) Intensification is often discussed in corpus linguistics literature under various headings such as amplifiers, boosters, approximators, diminishers, minimizers etc. (see e.g. Quirk et al., 1985:567).
an apology of sorts may invoke negative judgment). Here, the kind of attitudes invoked by focus is determined by the attitudinal prosodies established by inscribed instances (see also Martin & White, 2005:139 and Hood & Martin, 2007:753). Evaluative prosody is the topic of the next section.

Although GRADUATION is regarded in APPRAISAL as a system separate from ATTITUDE and ENGAGEMENT, Martin & White (2005:136) indicate that “attitude and engagement [can be said to be two] domains of graduation which differ according to the nature of the meanings being scaled”. In this study, graduation will not be treated separately from attitudes as the analytical focus will be only on instances of graduation that invoke (flag) attitudes. A detailed, separate analysis of graduation lends itself to future work as will be discussed in Chapter 6.

2.1.2.2.4 Appraisal Prosody and Genre
As discussed in section 2.1.1.5 above, interpersonal meanings favour a prosodic type of structure: they tend to extend over long and continuous stretches of discourse (Halliday, 1979:66; Halliday, 1994:36). APPRAISAL meanings are prosodic “in the sense that they are not reducible to constituent parts but instead resonate across the text as it unfolds in time” (Zappavigna et al., 2010a:150). The notion of prosody, as argued by Macken-Horanik (2003), is particularly helpful in exploring APPRAISAL, since “it allows for… fuzzy boundedness in stretches of evaluation in text”, “it captures concatenations of interpersonal motifs strung throughout a message or phase”, and “it suggests dynamism in choices – a mutating quality of evaluative choices” (p. 313). Evaluative prosody also contributes to the texture and cohesion of a text as it “can create cohesive links between separated elements … that are not readily construed by the usual cohesive devices” (Lemke, 1998)35. This prosodic cohesion, as asserted by Hood (2006:38), is multidimensional (i.e. logogenetically both prospective and retrospective) as attitudes tend to ‘radiate’ forward and backward “out from any explicit expression of ATTITUDE”.

Martin & White (2005:19) suggest three kinds of prosodic realisation of APPRAISAL: saturation, intensification and domination, as illustrated in Figure 2.1.2.8

35 Cf. van Dijk’s view that coherence also involves, in addition to proper sequences of propositions, opinions and ideologies (e.g. van Dijk, 1998:37).
below. A saturating prosody is constructed when an inscribed attitude instance stimulates similar attitudes to co-occur either nearby within the same logogenetic moment (e.g. the same clause or sentence) or more distantly (e.g. in a different logogenetic moment) (cf. Poynton’s 1984 diffuse prosody). Intensifying prosody involves repetition or intensification of similar attitudes, creating an amplification effect “so that the prosody makes a bigger splash which reverberates through the surrounding discourse (Martin & White, 2005:19) (cf. Poynton’s 1984 compact prosody). The dominating kind of prosody is initiated when evaluations occur within the scope of another evaluative instance. This type of prosody is evidently manifested in combinations (or couplings) of ENGAGEMENT and ATTITUDE meanings. For instance, in ‘I wasn’t thinking right at the time’, as the underlined positive judgment occurs within the scope of engagement: deny (in bold), it will carry the prosody of denial and the evaluative meaning is described as a denied (or contracted rather than monoglossic) positive judgment (Zappavigna, 2007:4).

Figure 2.1.2.8: Examples of the three types of prosodies (adapted from Martin & White, 2005:24)
As noted by Martin & Rose (2003), variations in prosodic patterns of appraisal construct the text’s stance\(^{36}\) or voice which “defines the kind of community that is being set up around shared values” (p. 59). In return, manipulating appraisal prosodies according to one type of “stance or another raises the issue of appraisal keys – the voices through which we speak” (Martin, 2004b:279). The relationship between appraisal, stance and key can be interpreted probabilistically in terms of the instantiation hierarchy (discussed in section 2.1.1.2 above). That is, APPRAISAL as a system is the language potential for creating evaluative meanings. The sub-selections of this global potential define a (registerial) appraisal key which is realized by reconfigurations of the probabilities for the occurrence (and co-occurrence) of appraisal options. A stance can be seen as particular sub-selections of appraisal options within a given key. Stances whether identified in a part or whole of a text (or a group of texts) are “associated with particular rhetorical objectives and the construction of authorial personae” (Martin & White, 2005:164). In other words, a stance is a distinct repertoire of prosodic patterns, whereas a key is a set of stance patterns (i.e. patterns of prosodic patterns). From this instantiation perspective, the range of evaluative options available for different stances is then constrained by registerial keys. Moving down the instantiation cline, the actual instances of appraisal choices are constrained by the particular stance taken so far in the text. Furthermore, the evaluative positions afforded by appraisal instances are also restricted by the kind of interaction that takes place between the listener/reader and the text; i.e. whether his/her reading is resistant, compliant or tactical\(^{37}\). Figure 2.1.2.9 shows the instantiation cline of evaluation.

\(^{36}\) From a similar social perspective, Du Bois (2007:163) defines ‘stance’ as “a public act by a social actor, achieved dialogically through overt communicative means, of simultaneously evaluating objects, positions subjects (self and others), and aligning with other subjects, with respect to salient dimension of the sociocultural field” (cf. Biber & Finegan’s 1988 definition of stance).

\(^{37}\) Martin & White (2005) further explain: “by a tactical reading we refer to a typically partial and interested reading, which aims to deploy a text for social purposes other than those it has naturalized; resistant readings oppose the reading position naturalized by the co-selection of meanings in a text, while compliant readings subscribe to it.” (p. 62)
The distinction between APPRAISAL as a potential of all possible keys, key as a pattern of stance patterns and stance as a pattern of evaluative prosodies initially emerged from the analysis of APPRAISAL in media discourse (Iedema et al, 1994; White, 1998) and was later extended to secondary school history (Coffin, 1997; 2000; 2006; Martin, 2002b). In media texts, these studies observe three distinct keys: reporter voice, correspondent voice and commentator voice. Each key is associated with specific APPRAISAL stances and prosodic patterns (as will be discussed in Chapter 3). For instance, the reporter voice is associated with very low probability of unmediated (i.e. un-attributed) inscribed judgment, whereas the other two voices have relatively high probability of unmediated judgment inscriptions. In secondary school history, Coffin (1997) also suggests three possible keys: recorder, interpreter and adjudicator. These keys correspond to the three media voices in terms of instantiation patterns: recorder corresponds to reporter, interpreter to correspondent and adjudicator to commentator (Martin & White, 2005:185).

In these studies, two further important observations are highlighted. First, the genre in which the text is produced will make particular stances and keys more or less likely (Martin, 2003b:175; Macken-Horarik, 2003:317). The three journalistic voices

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As pointed out by Hood (2012:56), in SFL research, ‘key’ and ‘voice’ are often used interchangeably.
mentioned above are associated with three media genres— the reporter voice is evident in news stories (or hard news) while the correspondent and commentator voices are typical keys in media opinions and analyses (media expositions, challenges and discussions) (see Feez, Iedem & White, 2007:211). In the same vein, the recorder key in school history is strongly associated with the recording genre (e.g. historical recounts), the interpreter to the explaining genre and the adjudicator to the arguing genre (see e.g. Coffin, 2000:387 & 2006:44-66). Second, the generic stages of a text can be associated with specific keys and stances, and, thus, allow for shifts in voice as the text unfolds logogenetically. For instance, in a historical recount39, the recorder voice is strongly associated with the obligatory stages ‘background’ and ‘record of events’. However, a final optional stage of ‘deduction’ is characterized by a shift in voice from recorder to interpreter or adjudicator, where heteroglossic attitudinal inscriptions become more dominant (Coffin, 1997:208; 2000:324). In the genre of media argumentation, shifts in stance and key across logogenetic moments are also associated with specific prosodic patterns to enact particular identities and communities, construe acceptance or rejection of certain in-group and out-group bonds and achieve certain rhetorical effects, as will be shown in the Chapter 5.

2.1.2.3 Conjunction

Conjunction is a widely discussed topic in SFL (e.g. Halliday & Hasan, 1976; Halliday, 1981; Halliday & Matthiessen, 2004; Thompson, 2005) and non-SFL literature (e.g. Lakoff, 1971; Heinämäki, 1973; van Dijk, 1975, 1977a, 1977b; 1980; Quirk et al., 1972; Quirk et al., 1985; Kamp & Reyle, 1993). However, it is beyond the scope of this thesis to review conjunction in all these studies. The focus here is on the system of CONJUNCTION in Martin’s discourse semantics as described in Martin & Rose (2003) which is a simplified description of Martin (1983 & 1992a) (for a comparison between Martin’s model and other SFL models of conjunction, see e.g. Samiolo, 2008). As mentioned in section 2.1.2.1 above, Martin’s model of CONJUNCTION is systemically organized into four subsystems: TYPE OF DEPENDENCY, ORIENTATION, EXPLICITNESS, and TYPE OF CONJUNCTION. The first system differentiates

39 A secondary school historical recount typically has the obligatory generic structure: background ^ record of events (see e.g. Martin & Rose, 2008:105). An optional generic stage ‘deduction’ can also follow the record of events (see Coffin, 2000:94).
between whether conjunction is structural or non-structural—whether conjunction is used to link clauses within a sentence (or clause complex) or used to cohesively connect sentences together. At a more delicate level, structural conjunction is further differentiated in terms of whether the clauses are of equal status (and thus the relationship between them is ‘paratactic’) or unequal status (the relationship is ‘hypotactic’ where one clause is dependent on the other).

The ORIENTATION system differentiates between whether conjunction logically organizes a field as sequences of activities beyond the text (‘external’) or logically organizes parts of the text independently of the field of discourse (‘internal’); in other words, between conjunctions that “express relations between the (represented) facts…[and, thus,]…organize the universe of discourse” and conjunctions that organize “our representations of the facts…[and, thus,]…the discourse itself” (van Dijk, 1977a:67). The extracts in Figure 2.1.2.10 provide two examples of external [a] and internal [b] conjunctive relations. In [a], the ‘succession’ relation between clause [3] and [1-2] is field dependent, as the event ‘beginning of a beautiful relationship’ follows the events ‘met a young man’ in the real world. By contrast, the ‘succession’ relation in [b] is internal to the text and independent of the text field. In other words, ‘succession’ here is rhetorically selected by the writer to organize their argumentation as the facts ‘amnesty being given at the cost of justice’ and ‘the Act required that the application…’ do not have a ‘succession’ relation in the real world.

Figure 2.1.2.10: Examples of implicit conjunction (Martin & Rose, 2007:146-147)

As discussed in section 2.1.2.1, a distinctive difference between Martin’s model of conjunction and Halliday & Hasan’s (1976) is Martin’s treatment of structural conjunction as part of discourse semantics rather than grammar.
The distinction between ‘internal’\textsuperscript{41} and ‘external’ conjunction has drawn some attention since it was first introduced by Halliday & Hasan (1976) and discussed under other labels (e.g. semantic versus pragmatic connectives in van Dijk, 1977a and Schiffrin, 1988; experiential versus rhetorical in Benwell, 1999; instantiated versus grounded in Verstraete, 1998). However, this distinction, as van Dijk (1977a) emphasizes, is not always clear-cut, “because our knowledge of the facts is intimately related to the ways in which we speak about them” (p. 67).

The EXPLICITNESS system distinguishes between conjunctive relations that are realized explicitly and those realized implicitly. Occasionally, a conjunctive relation is semantically present without being marked explicitly by a conjunction. For instance, the external ‘succession’ relation in extract [a] in Figure 2.1.2.10 is inferred from ‘it was the beginning of…’ in clause [a-3] rather than marked explicitly. Martin & Rose (2007) use brackets to denote the implicitness of ‘then’. Similarly, the internal succession in extract [b] is inferred from the co-text rather than explicitly expressed, more specifically from the schematic structure of the text to link the Argument in [b-2] back to the Thesis [b-1].

Finally, the TYPE system classifies conjunctive relations into four categories: addition, comparison, time and consequence. External addition is typically marked by ‘and’ (addition) and ‘or’ (alternation). Internal addition covers conjunctions such as furthermore, in addition, alternatively, anyway. At a more delicate level, internal addition is classified into ‘additive’ (e.g. furthermore, in addition) and ‘staging’ (e.g. anyway, anyhow). External comparison is marked by conjunctions such like, as if, whereas. Internal comparison is typically marked by ‘similarity’ conjunctions such as similarly, that is, i.e., for example, for instance, in particular etc., or ‘different’ conjunctions e.g. by contrast, on the other hand. External time organizes events as they occur in the real world by either ‘successive’ conjunctions (e.g. then, after, before) or ‘simultaneous’ (e.g. while). Internal conjunction organizes ‘text’ time using either ‘successive’ conjunction (e.g. first, second, next, previously, finally) or ‘simultaneous’ (e.g. at the same time). External consequence includes cause-effect conjunctions (e.g. so, because, although), means (e.g. by, thus), condition (e.g. if...then, as long as, unless) and purpose (e.g. in order to, so that). Internal consequence is mainly

\textsuperscript{41} Verstraete (1998) suggests that ‘internal’ conjunction can be subdivided into ‘speech act’ and ‘epistemic’. McGregor (1999) rejects this subdivision.
concerned with deriving conclusions from arguments or countering them. Concluding relations are typically realized by conjunctions such as in conclusion, thus, hence, accordingly etc. Countering relations are frequently marked by conjunctions such as but, however, nonetheless and so on. It should be mentioned here that countering conjunction also serves an interpersonal function as it intersects with countering engagements (discussed in section 2.1.2.2.2 above).

Figure 2.1.2.11: CONJUNCTION system (summarized from Martin & Rose, 2007)

Figure 2.1.2.11 summarizes the discourse semantics system of CONJUNCTION. As far as discourse analysis is concerned, the study of conjunction in this thesis is significant because

“from a perspective of text in context…conjunction can be interpreted as the gate-way to the discourse semantics much as the clause is the gate-way mediating relations between discourse semantics and lexicogrammar. It is thus
a useful place to start whenever structure of whole texts is under consideration and an interpretation of their relationship to ideology, genre and register is what is required.” (Martin, 1992a:269)

Furthermore, as one of the key concerns in this study is the logogenetic construction, construal and negotiation of identities and bonds as we move from one stage of the text to another, analysis of internal conjunction is particularly useful because “across genres, the role of internal relations is to scaffold the schematic structure of a text” (Martin, 1992a:181).

2.1.3 Summary of SFL Theoretical Concepts
In the previous subsections, key theoretical concepts and frameworks of SFL that are particularly pertinent to this thesis have been reviewed. These theoretical aspects contribute to the current study in a number of ways. First of all, as this study is mainly concerned with language use in social context, SFL hierarchies and complementarities provides several insights into the relationship between language and its context. Realization informs us of how language meta-redounds with social context, particularly how various meanings in the discourse semantics are linked to the genre of English editorials/op-eds and the argumentative structure of texts. Instantiation enables us to look at linguistic evidence of individuation (i.e. couplings of different discourse meanings) from different levels of abstraction: from the climate perspective to observe the overall linguistic patterns associated with a corpus and large group of texts or from the weather perspective to explore linguistic patterns in a single text or a small group of related texts. In addition, the probabilistic view of instantiation enables this study to quantify linguistic evidence and, therefore, visualize it on the screen.

Furthermore, as the primary, analytical focus of this study is on couplings of interpersonal and ideational meanings, the SFL hypothesis of metafunction informs us of how these meanings interact with each other to construct and negotiate identities through construal of community bonds. The axis complementarity brings to our attention that this interaction can be, and should be, looked at paradigmatically as a combination of systemic choices as well as syntagmatically as a sequence of systemic choices. From a probabilistic view, in other words, interaction of interpersonal and ideational meanings can be explored ‘conditionally’ as how paradigmatic choices in a
system affect selections in other systems, and ‘transitionally’ as how choices in a system are affect or are affected by choices made in the same system in the preceding parts of the text (as discussed in Chapter 5).

Finally, individuation and Knight’s model of affiliation are the most relevant to this study since it is concerned with how identities are constructed and negotiated through bonds that are, in turn, construed by couplings of attitudes and experiential entities. The appraisal description enables us to identify the kinds of attitudes and target of attitudes that couple to construe various community bonds and regulate the process of negotiating these bonds as text unfolds. Further, analysis of internal conjunction informs us about the kinds of logical relations that scaffold shifts in identities and stances in a text vis-à-vis its schematic structure.

2.2 Linguistic Visualization: Types of Data, Coding Schemes and Design Facets
In this section, we shift focus from the linguistics to the visualization aspect of this thesis. First, definitions and purposes of visualization will be briefly discussed. Next, theoretical tenets of visualization design including the visualization pipeline, types of data, coding schemes, dynamic visualization and interactivity will be reviewed. These tenets scaffold the review of linguistic visualizations and the design of AppAnn techniques discussed in Chapter 4. Furthermore, heuristics that guide the design of effective visualizations will be outlined. Finally, as linguistic data fall into categorical and qualitative classes, methods for visualizing categorical data will also be explored, with a special focus on those applied in this thesis. Furthermore, the issues of, and possible solutions to, multidimensionality and complexity of linguistic data will be briefly addressed.

2.2.1 Definition and Purpose
In contemporary English, the verb ‘visualize’ can construe a mental process as well as a material process. As a mental process ‘to visualize’ means “to form a mental image”; in this sense it is synonymous to ‘imagine’ or ‘envisage’. As a material process, ‘to visualize’ means “to make something visible to the eye” (Oxford Dictionaries Online, 2013). It is the latter sense with which this thesis is concerned. Technically speaking,
‘visualization’ refers to the use of computer-mediated graphical representations of complex data and information (Card et al., 1999; Fayyad et al., 2002; Myatt 2007). In the relevant literature, several ‘Classifiers’, to use the lexicogrammatical term, often precedes the noun ‘visualization’, most notably ‘data’, ‘information’, and ‘scientific’. Whereas scientific visualization is concerned with physical and concrete data (e.g. air pressure, body temperature, brain activity), information visualization deals with abstract, non-physical data (e.g. textual data, stock prices, actuarial tables) (Kavouras & Kokla, 2008:185). The term ‘data’ visualization, however, is often used loosely either as a synonym to scientific visualization (e.g. Demšar, 2009), to information visualization (e.g. Doyle, 2011) or as an umbrella term for both (e.g. Post, Nielson, & Bonneau, 2003).

Under the information visualization (often abbreviated as InfoVis) category, there are techniques that are specifically designed to visualize textual data. This sub-category of techniques (reviewed in Chapter 4) is referred to as Linguistic visualization (or LInfoVis for short). Every LInfoVis technique has a unique purpose (e.g. visualization of frequencies of lexical items as in e.g. Chang, 2009; Feinberg, 2009; of changes in lexical usage over time as in e.g. Fry, 2000; Cui et al., 2009; of multimodal annotations as in e.g. Podlasov, Tan & O’Halloran, 2012; of cohesive relations as in e.g. Gawryjolek, 2009; Zhao et al., 2012; of sentiment and evaluative language as in e.g. Wensel & Sood, 2008; Oelke et al., 2008). However, the EURAC42 (European Academy of Bozen/Bolzano) website lists three overall common purposes of LInfoVis techniques:

- to convey information about language data,
- to provide a way to interact with language data, and
- to be an aid to discovering new information about language.

The following subsections provide us with the theoretical and practical apparatus needed to design linguistic visualization techniques that accomplish these three purposes.

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2.2.2 The Visualization Pipeline

Although almost every visualization technique has unique design properties, Haber and Mcnabb (1990) point out that a successful visualization design must pass through four stages: data analysis, filtering, mapping and rendering. Wright (2007:28) and Mazza (2009:17) simplify this model by combining the first two stages as shown in Figure 2.2.2.1.

![Figure 2.2.2.1: The visualization pipeline (Mazza, 2009:17)](image)

The first stage of the visualization pipeline involves preprocessing and transforming raw data (e.g. a raw text file). Preprocessing usually includes extracting data from source files, filtering out irrelevant or redundant parts of the data, converting textual data into tabular formats readable by the visualization software tool, interpolating missing numerical data and so forth.

After the raw data have been preprocessed, a number of transformations are carried out. These transformations will vary from one technique to another; but the main goal in this stage is to “generate some form of analytical abstraction” of the raw data (Chi, 2000). This is often achieved by means of, inter alia, statistical analysis and the addition of metadata (i.e. data describing original data) (Ware, 2004:26). Once the raw data is processed, the next step is visual mapping. In this stage, the designer should provide the visualization tool with a proper visual encoding scheme. This scheme guides the tool in terms of how different aspects of data will be represented and what visual variables (e.g. color, texture, shapes) will be incorporated in the final visualization view. Choosing an effective and proper encoding scheme depends, in
fact, on multiple factors, but most importantly on the types of data and the kinds of human perceptual processing involved as will be discussed in the following sections.

2.2.3 Visual Variables, Types of Data and Encoding Schemes
In his seminal work on the semiology of graphics, Jacques Bertin (1967; 1983) divides visual structures into two sets\footnote{Early works on basic visual variables also include Bowman (1967).}: marks and visual variables. Marks are the basic visual units: points, lines, areas, surfaces and volumes. These marks can be described and modified by seven visual variables\footnote{Different terms are employed here. For example, Mazza (2009) uses the terms graphical elements (to denote visual marks) and graphical properties (to denote visual variables).}: position (location in a 2D or 3D plot/space), size, value (saturation), colour (hue), shape, texture and orientation, as illustrated in Figure 2.2.3.1. These visual variables are known as preattentive variables “because their detection precedes focused attention in the low-level human visual system” (Healey et al. 2000:2; see also Wolfe, 1994:203)\footnote{Bertin (1983) calls position a planar variable (a 2D plane) and the remaining ‘retinal variables’ “due to the assumption that humans have automatic, preconceptual, reactions to these variables at the level of retinal processing” (MacEachren, 2004: 270).}. Due to advances in computer graphics, later works on information visualization add more visual variables including movement and motion (Ware & Frank, 1996; Bartram 1997, 2001), color transparency (MacEachren, 2004), 3D techniques (Wright, 1995; Eaden, 2005), visual effects such as blur to encode uncertainty in data (Kosara, 2001; Collins, 2010).
As far as visual mapping is concerned, the choice of an optimal combination of marks and variables depends on a number of independent factors, as pointed out by North (2005), but mainly on the type of data we are trying to visualize (Mackinlay, 1986). Bertin’s (1983) model describes three types of data: nominal\textsuperscript{46}, quantitative and ordered\textsuperscript{47}. Nominal (aka categorical) data are those that can be classified into distinct categories, e.g. sex (male, female), word class (noun, verb…etc.), APPRAISAL categories and so on. Quantitative (or numerical) data refers to data that can be expressed numerically (such as temperature, price, height, age etc.); whereas ordinal data are those that have meaningful order and can be arranged in a ranking scale (e.g. high-medium-low, first-second-third….). Bertin (1967; 1983) also proposes that for encoding numerical data, only the visual variables location and size are acceptable, whereas ordinal data can be mapped to all variables, except for colour hue and shape. On the other hand, encoding nominal data is exclusively limited to location, hue and shape. Figure 2.2.3.2 provides a summary of Bertin’s optimal mappings.

\textsuperscript{46} subdivided into associative and selective in his original work.

\textsuperscript{47} Stevens (1946) proposes similar categories of data but he divides the quantitative into: interval and ratio. MacEachren (1995) points out that Bertin did not distinguish between interval and ratio types of data.

Figure 2.2.3.1: Visual marks and variables (adapted from Bertin, 1983)
Later studies extend Bertin’s work. For instance, building mainly on Cleveland and McGill’s (1985) work on quantitative data, Mackinlay (1986) adds more visual variables such as angle and slope, and offers a ranking scale of the most and least accurate variables to encode the three types of data. According to this ranking (given in Figure 2.2.3.3), position (or location) is considered the most accurate visual variable to encode any type of data. For nominal data, colour hue and texture are highly ranked, while ordinal data are most effectively represented by density (colour value) and colour saturation. For quantitative data, Mackinlay’s ranking concurs with Cleveland and McGill’s in which length, angle and slope are the most accurate variables.

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*Figure 2.2.3.2: Optimal visual mapping of the three types of data (MacEachren, 2004:272)*

*Figure 2.2.3.3: Ranking scale of visual variables (adapted from Mackinlay, 1986)*

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48 Mackinlay’s terms were graphical primitives and perceptual tasks.
However, as noted by Ware (2004:6) and North (2005: 1213), Bertin’s and Mackinlay’s observations are based mainly on experience and subjective judgement. Consequently, several later studies empirically test the validity of these observations by examining the perceptual properties of certain visual variables. For the most part, these observations are confirmed (e.g. Card et al., 1999; Weigle 2005; Hagh-Shenas et al, 2006; Garlandini & Fabrikant, 2009). However, the ranking of some visual variables for encoding nominal data has been questioned by a number of studies. For instance, while Nowell (1997), Filippakopoulou, Michaelidou & Nakos (1999) and Nowell, Schulman & Hix (2002) confirm that colour hue is the most effective code for nominal data, their empirical work suggests that shape, not texture, is the next most accurate nominal code.

Along the same lines, Endert, Fink & North (2009) and Andrews et al. (2011) note that the use of colour to support position in representing nominal data can overcome limitations imposed by small-scale displays. This mutually supportive combination of visual variables (where more than one variable is used to encode the same aspect or dimension of data) is widely known in the literature as ‘redundant coding’ or ‘secondary mapping’. Nowell (1997:54) asserts that redundant coding can be, in fact, more effective than single coding. Her experiments, for example, show that combining colour hue, shape and size to represent nominal data is far more effective than using colour hue or shape alone. Further studies also conclude that redundant codes can increase search speed, improve accuracy, reduce ambiguity of some codes such as position, and enhance cognition by providing more than one perceptual cue to the same dimension of data (Bertin, 1983; Brath, 1999; Nowell et al 2002; Powers & Pfitzner, 2003; Giannopoulou, Lepouras & Manolakos, 2011; Radloff et al. 2011).

Accordingly, in this thesis, as will be detailed in Chapter 4, nominal data (e.g. ATTITUDE TYPE, ENGAGEMENT, TYPE OF CONJUNCTION) is ‘redundantly’ encoded by hue and shape, quantitative data (e.g. relative frequency of judgment instances or counts of ‘similarity’ conjunction in a text) is encoded by either position or slope, and ordinal data (e.g. text time, order of sentences, generic stages) is mainly encoded by position and animation (e.g. to signal movement from one generic stage to another). Animation is discussed in the following subsection.
2.2.4 Dynamic Paradigm, Interactivity and View Manipulation

Recent research in information visualization also emphasizes that the visual variables discussed earlier can be significantly improved through animation, interactive exploration and view manipulations. Chen (2005:xxi) points out that the second generation of visualization techniques is “dynamic-centric”; “it is about change … sudden changes as well as gradual changes … growth, evolution and development” over time. Unlike colour, size, shape and other static codes, motion in visualizations are found to be a more natural code for dynamic changes. Ware (2013: 229) stresses that humans “are very sensitive to patterns in motion” and, if used properly, motion “may be a good way to display certain aspects of the data”. In her PhD work, Bartram (2001:15&152) carried out a series of perceptual experiments and concluded that, if not over-used, motion can dramatically improve information visualizations because “it is perceptually efficient … interpretatively rich … computationally cheap … [and] unlike the standard static codes, it has not yet been over-coded”. She also suggests some potential applications of motion, including signalling important data, grouping elements (i.e. similar data elements are represented by the same motion speed and direction), and displaying dynamical relationships and changes among data elements. Other effective applications include filtering (Bartram, Ware & Calvert, 2002) pattern detection (Ware & Bobrow, 2006), visualizing complex and multivariate data (Healey, Booth & Enns, 1996), and improving the perception of spatial relationships (Bobrow & Helsinger, 2005; Lum, Stompel & Ma, 2002).

Early research (e.g. Nakayama & Silverman, 1986) shows that motion is in fact a preattentive variable (similar to size and colour etc.). This opens up enormous possibilities for various effective redundant codes and combinations of motion with other variables. Weiskopf (2004), for instance, points out the effectiveness of using colour, particularly luminance contrasts, to improve the perception of motion. He also draws attention to the role of combining colour contrasts, orientation and motion in detecting salient changes in data. Furthermore, Limoges et al. (1989) and Bartram et al. (2002) experimentally investigate combining motion with orientation and position. Both conclude that, when compared to the sole use of position or orientation, this combination significantly improves visual association and discrimination of complex data. Motion cues can also be implemented in conjunction with shape, in order to generate animated glyphs. Lum et al. (2002) and Ware & Bobrow (2006) find that the
redundant use of motion and shape to encode dynamic data (especially data that include abrupt changes over time) can actually improve the detection and disambiguation of major variations and important moments in the data sets. Some studies, however, suggest that motion traces (or trails) can be a better alternative in some situations. For instance, Robertson et al (2008) note that while animation is very effective for presentational purposes, traces can be more effective for analytical purposes because of their ability to record prior motion. Rind et al.'s (2011) study substantiates this view, but it also notices that traces can be difficult to interpret if they overlap too much. (Figure 2.2.4.1 provides an example of motion traces). In this thesis, motion and traces are used ‘redundantly’ to encode changes in discourse semantics features over text time (e.g. changes of relative frequencies of judgment as we move from one logogenetic moment to another).

![Figure 2.2.4.1: Use of traces of motion in plots (right) in comparison to motion alone (left) (Robertson et al., 2008: 1328)](image)

Perception and interpretation of complex data can also be greatly augmented by means of interactive manipulation and exploration of the final visualizations. As Ware (2004:317) emphasizes, a good visualization technique is more than a static picture: it is “something that allows us to drill down and find more data about anything that seems important”. Shneiderman, in his widely-cited paper (1996), lists four tasks (or usage patterns) that should accomplish basic user interaction: overview, zoom, filter and details-on-demand. These four tasks comprise what is commonly known in the
literature as “Shneiderman's Visualization Mantra” which is often quoted as “overview first, zoom and filter, then details-on-demand” (see e.g. Shneiderman 1996:337; Burkhard & Meier 2004:451; Lengler & Eppler 2007:86; Perer & Shneiderman 2008:267; Wills 2012:89).

The first task refers to the user’s need to obtain, prior to any interaction, an overall overview of the visual presentation of data. This overview should also be supported by navigation tools such as scrolling and panning (navigating around the visual scene) as well as rotation (navigating around a target), especially when the visual content extends beyond the display area. Once the user chooses to focus on certain areas of the view, different zooming techniques will be of great benefit. Zooming can be simple (or geometric) or semantic. Simple zooming will only alter the geometric properties of the visual objects under consideration (e.g. size of a visual mark or shape, or area enclosing a group of marks) to gain a larger/smaller view. Semantic zooming involves changing the visual variables associated with an object to gain more or less details. For instance, if a simple bar chart is used in such a way that each bar shows the frequencies of certain words per one sentence in a text, then semantic zooming can be implemented to obtain more details (frequencies per clauses or phrases) or less details (frequencies per paragraphs or texts). In this case, changes of visual properties of the bar (e.g. height and/or colour hue) reflects changes in actual frequencies per different scale units. (For more on semantic zooming see e.g. Tanka & Ichikawa, 1988; Perlin & Fox 1993; Büring, Gerken & Reiterer 2006). Scrolling, panning, rotation and zooming are often subsumed under the notion of ‘Overview+Detail’ and extensively discussed in terms of efficiency, implementation and proper applications in several publications (e.g. Plaisant,Carr & Shneiderman 1995; Plaisant et al. 1996; Hornbæk, Bederson & Plaisant, 2002; Cockburn, Karlson & Bederson, 2008).

The next tasks in Shneiderman's mantra are filtering and details-on-demand. Filtering can be accomplished by removing or hiding unwanted visual content. In the bar chart example previously mentioned, filtering can be used to hide bars of function words if the focus is on content words or vice versa. Alternatively, it can show the frequency bars related to a certain subcorpus of texts, while hiding other bars. Details-on-demand refers to the ability of a visualization technique to provide more information about certain aspects of the data when the user demands it. In terms of the
bar chart example, this task may be fulfilled by displaying a pop-up window showing the exact words and their frequencies when the user moves the mouse pointer over a specific bar. Relevant to Details-On-Demand is the notion of ‘Focus+Context’ which refers to a category of techniques that “simultaneously provide the user with detailed (focus) and contextual (context) information in the same area, without using two separate views” (Mazza, 2009:110). As remarked by Chen (2006:117), Cockburn (2008:1) and Collins (2010:26), the difference between the previously discussed Overview+Detail methods and the Focus+Context ones hinges upon whether details are separated from the visualization view (as in the former) or combined with the view (as in the latter). Focus+Context is often carried out by distorting the view in such a way that visual objects of interest are displayed in full detail while peripheral parts of the view are presented in less detail (for more on distortion-oriented techniques see e.g. Leung & Apperley, 1994 and Winch, Calder & Smith, 2000). Several Focus+Context techniques are proposed in the Information Visualization literature, most significantly the fisheye view (e.g. Furnas 1986 & 2006; Sarka & Brown, 1994; Tominsk et al, 2006), bifocal view\(^49\) (Apperley & Spence, 1981; Apperley et al. 1982), perspective wall (Mackinlay et al., 1991), hyperbolic view (Lamping, Rao & Pirolli, 1995; Lamping & Rao, 1996; Kreusler 1999), and image visual effects for Focus+Context (e.g. Kosara, 2002).

In this thesis, several Overview+Detail and Focus+Context techniques are deployed in AppAnn visualization techniques (detailed in Chapter 4). First, zooming and panning are incorporated to facilitate the navigation of the visualization view, especially when the view extends beyond the screen limits. Second, the concept of Details-On-Demand is applied to provide textual information whenever needed by the user. For instance, when the user moves the mouse pointer over a visual object (e.g. a red square), textual information (e.g. annotated paragraph) related to that object will be shown on the right side of the visualization view. Finally, Focus+Context is employed in AppAnn to help the analyst focus on certain aspects of the visualization when needed. For instance, the user can choose to hide certain visual objects that represent AFFECT and APPRECIATION instances whereas visual objects representing JUDGMENT instances are kept visible. Alternatively, blur effects (as implemented in e.g. Kosara,

\(^{49}\) The bifocal view can be thought of as a variety of the polyfocal projections proposed by Kadmon & Shlomi (1978). Furthermore, the Fisheye view is often presented as a variety of the bifocal view (see e.g. Leung, Smith & Fabre, 2001)
2002) can be applied to visual objects representing AFFECT and APPRECIATION in order to keep the visual focus on those representing JUDGMENT instances.

2.2.5 Heuristics and Evaluation
Although choosing a proper visual mapping according to data type, and adding useful navigation and interaction capabilities are essential, they are not the only factors that determine the expressiveness, effectiveness and validity of a visualization technique. Factors such as how visual codes work in harmony with each other, what target audience the designer is trying to reach, and what specific goals the technique seeks to achieve are also important in conducting an overall evaluation of a technique. However, a number of researchers realize that systematic evaluations of visualization techniques are still problematic and incomplete. Chen (2005), for instance, lists the process of measuring and evaluating the quality, usability and effectiveness of a visualization technique as one of the top ten unsolved problems in the field50 (see also Chen & Czerwinski, 2000). Numerous approaches to InfoVis evaluation have been proposed. Mazza (2009) notes that these approaches can be categorized under two headings: empirical methods and analytical methods. Empirical methods are based on experiments conducted to test the performance and usability of a technique among a sample of the target users. These often include lab-based and long-range case studies (e.g. Ahlberg & Shneiderman 1994; Irani & Ware 2003; Sutcliffe, Ennis & Hu 2000; Trafton et al. 2000; Lam et al. 2012). Analytical methods involve testing a visualization technique against a set of principles (known as heuristics) provided by expert designers and cognitive researchers.

The Information Visualization literature, mainly based on research from Human-Computer Interaction and related fields, provides sets of guidelines and heuristics that help designing visually coherent and successfully integrated visualizations. Shneiderman’s mantra and rankings of visual variables discussed above are examples par excellence of simple heuristics. Several evaluation heuristics and design principles are also proposed by Bertin (1983), Murch (1985), Tufte (1983 & 1990), Amar & Stasko (2004) and Ware (2004), to mention but a few.

50 Plaisant (2004) addresses the major challenges that usually arise in the evaluation of InfoVis techniques.
Zuk et al. (2006) offer a provisional classification in which evaluation heuristics are grouped into three broad categories: perception, cognition and usability. Perceptual and cognitive heuristics concern guidelines for using visual variables, integrating these variables into a coherent visualization, and improving the aesthetics of the final view. Usability heuristics include principles to guide the creation of consistent, easy-to-follow visualization techniques. The navigation and exploration techniques discussed earlier fall into this latter category. Table 2.1 below provides a list of commonly cited heuristics.

<table>
<thead>
<tr>
<th>#</th>
<th>Heuristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Consider visual variables and types of data (e.g. colour hue for nominal data rather than colour value)</td>
</tr>
<tr>
<td>2</td>
<td>Be aware that not all colours are equally discernible or readable</td>
</tr>
<tr>
<td>3</td>
<td>Be aware that similar colours connote similar meanings</td>
</tr>
<tr>
<td>4</td>
<td>Be aware that hues change with intensity and background colour</td>
</tr>
<tr>
<td>5</td>
<td>Avoid pure blue for text, thin lines and small shapes</td>
</tr>
<tr>
<td>6</td>
<td>Don’t expect a reading order from colour</td>
</tr>
<tr>
<td>7</td>
<td>Avoid chartjunk (i.e. unnecessary decorations)</td>
</tr>
<tr>
<td>8</td>
<td>Be aware that colour perception varies with size of coloured item</td>
</tr>
<tr>
<td>9</td>
<td>Be aware that opponent colours go well together</td>
</tr>
<tr>
<td>10</td>
<td>Be aware that brightness and saturation draw attention better than e.g. shapes</td>
</tr>
<tr>
<td>11</td>
<td>Be aware that older viewers need higher brightness levels to distinguish colours</td>
</tr>
<tr>
<td>12</td>
<td>Consider people with colour blindness</td>
</tr>
<tr>
<td>13</td>
<td>Consider Gestalt laws</td>
</tr>
<tr>
<td>14</td>
<td>Use navigation, exploration and querying</td>
</tr>
</tbody>
</table>

51 This heuristic is derived from the previously discussed rankings in which colour hues are not compatible with ordinal data.
52 Ware (2004:125) warns that if color-coded objects are small, differentiating between different hues can be difficult.
53 According to the Opponent-Process Theory proposed by Hering (1964), there are three opponent pairs of colours: black-white, blue-yellow, and red-green. Also related to this heuristic are the Colour Wheel and colour schemes based on colour theory (for recent non-technical introduction see e.g. Mollica, 2013).
54 Murch (1985:128) notices that “as we grow older … colour appears less vivid and bright” which makes it difficult to differentiate between hues.
55 Many studies have shown that some people cannot distinguish between red and green or between yellow and blue (see e.g. Martini, 2004:427 and Plaisant 2005:61).
56 Gestalt principles from the Berlin school of psychology are frequently applied in InfoVis (e.g. Card et al. 1999 and Burkhard 2005) (and social semiotics e.g. Loncharich, 2012).
As far as evaluation of visualization techniques is concerned, Zuk et al. (2006:1) and Zuk (2008:61) note that “heuristic evaluation is a light-weight process that can be cheap, fast, and easy to apply” when compared to empirical evaluation. In fact, some studies warn against the use of empirical methods to evaluate early prototypes of a visualization technique (e.g. Greenberg and Buxton, 2008). In addition, Collins (2010) stresses that:

getting bogged down on the types of details measurable with user studies when inventing prototypes that address new problem areas can eliminate ideas too early. Also, when there are few or no comparators to compare against (which is often the case in InfoVis), it is challenging to create a study that convincingly says anything about a holistic system. (p. 38)

Since AppAnn visualization techniques developed in Chapter 4 belong to this category of ‘early prototypes’, and since conducting a lab-based empirical evaluation of these visualizations is obviously far beyond the limits of this study, I will, following the suggestions discussed earlier, avoid empirical evaluations in this thesis. Instead, I will adopt the heuristic approach. My design of AppAnn techniques (illustrated in Chapter 4) and their actual applications to my corpus (in Chapter 5) will be mainly guided by the heuristics and perceptual aspects delineated in this section.

### 2.2.6 Categorical Data Visualization and Multidimensionality

As discussed in section 2.2.3 above, categorical\textsuperscript{57} data are data that can be arranged into various categories (Reynolds, 1977:7; Agresti, 2007:1; Wilcox, 2012:735).

\textsuperscript{57} The terms ‘categorical’ and ‘nominal’ are often used interchangeably in the InfoVis literature. However, the former is often used in the context of statistical descriptions to refer to data that can be
Because linguistic data, especially from an SFL perspective, are dominantly categorical (e.g. PROCESS TYPE [mental, material, verbal…], POLARITY [positive, negative], ORIENTATION [subjective/objective, explicit/implicit], ATTITUDE TYPE [affect, judgment, appreciation] etc.), it will be remarkably fruitful to investigate a special category of InfoVis techniques that aim to visualize categorical data. Visualization of categorical data (hereafter CDV) is a relatively new field and its techniques are limited in number when compared to methods for visualizing quantitative data (Friendly, 1998:17). However, CDV techniques have basically the same design stages illustrated in Figure 2.2.2.1 above. What distinguishes CDV from other InfoVis techniques is the kind of processing performed in the pre-processing and transformation stage. According to Leeuw (1998:1), the majority of these processes are based upon contingency table analysis and multidimensional scaling techniques, notably correspondence and cluster analyses (for a comprehensive introduction to categorical data analysis, see Agresti 1990; 2002; 2007; 2010).

Since popularized by Karl Pearson in 1905, contingency tables are probably the most common way to represent categorical data in linguistics and social sciences either internally, as a form readable by machine, or externally, as a summary of categorical frequencies on the screen (Tuldava, 1995; Stokes et al, 2003; Elmes, Kantowitz & Roediger 2006). Cross-tabulation (i.e. the process of creating contingency tables) is achieved by counting intersections between items or cases of two or more categorical variables. For example, Table 2.2 shows a contingency table from a corpus-based study on two English tenses, carried out originally by Hundt and Smith (2009). Here, the cross-tabulation is performed by counting the number of occurrences of tense cases in four different corpora. The two categorical variables (TENSE and CORPUS) are described by their constituent categories: two TENSE categories and four CORPUS categories. The cell counts represent the joint frequencies of the two variables categories (e.g. the first cell count indicates that there are 4196 occurrences of present perfect in the LOB corpus). The row totals represent the marginal frequencies of each row category: the frequency of a specific row category with respect to all column categories (e.g. the first total count indicates that there are 15306 present perfect counted, as opposed to those that exist on a continuum (i.e. continuous data). In this sense, categorical data covers both nominal and ordinal data (e.g. Bartoszynski & Niewiadomska-Bugaj, 2008:585).
occurrences in all four corpora). Similarly, the column totals indicate the marginal frequencies of each column category (i.e. the sum of cell counts in a given row).

<table>
<thead>
<tr>
<th>tense/corpus</th>
<th>LOB</th>
<th>FLOB</th>
<th>BROWN</th>
<th>FROWN</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>pres. perf.</td>
<td>4196</td>
<td>4073</td>
<td>3538</td>
<td>3499</td>
<td>15306</td>
</tr>
<tr>
<td>simple past</td>
<td>35821</td>
<td>35276</td>
<td>37223</td>
<td>36250</td>
<td>144570</td>
</tr>
<tr>
<td>Totals</td>
<td>40017</td>
<td>39349</td>
<td>40761</td>
<td>39749</td>
<td>159876</td>
</tr>
</tbody>
</table>

Table 2.2: Observed frequencies of two tenses in four corpora (adapted from Gries, 2010:281)

As noted by Friendly (2000:5) the main interest, in many social science studies, is to measure the strength of association (or dependence) either between the categorical variables in general (global association) or between different categories of each variable (individual association). The first kind of association is often measured by statistics such as the Pearson chi-square ($\chi^2$) and log-likelihood ($G^2$) tests. For instance, the $\chi^2$ calculated from the previous example (Table 2.2) shows a strong association between TENSE and CORPUS ($p$-value is further below 0.001 according to Gries, 2010:281). That is, the distribution (or usage) of the two tenses strongly depends on the type of corpus. However chi-square tests cannot measure the significance of individual associations of particular tense categories with particular corpora. In this case, tests of comparing expected and observed frequencies for each cell (e.g. odds ratio, difference of proportions, chi-square residuals) can be used (see Agresti, 2007:Ch2). For easy comprehension and interpretation, the numerical outputs of such cell-based tests can then be presented in a graphical form through various visualization techniques.

Shiraishi, Misue & Tanaka (2009:343) observe that these techniques fall into two categories: frequency-based and quantified. Frequency-based techniques reflect the structure of the contingency table and their coding schemes are usually mapped directly to the cell frequencies. Prominent examples of frequency-based techniques include the Fourfold Display (Fienberg, 1975), Sieve or Parquet Diagrams (Riedwyl & Schupback, 1983 & 1994), and the Mosaic Display (Hartigan & Kleiner 1981; Friendly 1994) (for a comprehensive review of these techniques see Friendly 1998, 2000; Meyer, Zeileis & Hornik 2008). Quantified techniques “transform categorical data into graphical representations of quantitative data” (Shiraishi, Misue & Tanaka, 2009:344). That is, visualization methods that are specifically designed for quantitative data can be
modified, either at the transformation or the visual mapping stages (discussed in section 2.2.2 above), to represent the categories of a contingency table. These techniques can be roughly categorized into time-series techniques (discussed in section 2.2.6.1) and dimensionality reduction techniques (section 2.2.6.2).

2.2.6.1 Time-Series Visualization and Time-dependent Contingency Tables
It is very often that a contingency table involves, alongside categorical variables, a time-based (or temporal) dimension. In linguistics, for example, a number of studies are devoted to examining changes in language use and systems over either phylogenetic (e.g. Barber, 1964; Leech, 2003; Mair & Leech, 2006; Aarts et al. 2013), ontogenetic (e.g. Halliday, 1974; Hasan, 1989; Maclagan & Mason, 2005; Painter, 2006) or logogenetic time (e.g. Fries, 1985; Rothery & Stenglin, 2000; Matthiessen, 2002; Hood, 2004; Chang 2010; Chang & Schleppegrell, 2011) (for a brief discussion of these time frames, see section 2.1.1.5 above). In these and similar studies, findings and observations are presented, or can be presented, in time-dependent contingency tables. Here time is treated as a variable categorized into appropriate time units, e.g. years or age (in phylogenetic and ontogenetic studies), and clause complexes or generic/rhetorical stages (in logogenetic studies). For example, in the contingency table (Figure 2.2.6.1a), APPRAISAL data (for a discussion of appraisal, see section 2.1.2.2.4 above) is cross-classified by ATTITUDE TYPE (as a column variable) and generic structure (as a row variable) where logogenetic time is encoded in the three generic stages of an interpretation text: Text Evaluation, Text Synopsis, and Reaffirmation. Similarly, in Figure 2.2.6.1b, Fries’ (1985) data is cross-classified by four process types and four narrative phases. Here, logogenetic time units are represented by these phases. Finally, in the contingency table (Figure 2.2.6.1c), data is cross-classified by appropriateness of conjunction use by an Alzheimer’s patient and the year the patient is interviewed (ontogenetic time).
Figure 2.2.6.1: Examples of logogenetic and ontogenetic contingency tables a) distribution of appraisal over time (Rothery & Stenglin, 2000: 241); distribution of process type in narrative phases (Fries, 1985); c) distribution of the Appropriate and Inappropriate Uses of conjunction in Alzheimer patient’s data over ontogenetic time (Maclagan & Mason, 2005:154)

Time-dependent and time-series categorical data has been the focus of a considerable number of InfoVis studies (Aigner et al. 2011 provides a comprehensive survey of over 100 time-oriented visualization techniques\(^58\); and Müller & Schumann, 2003; Saraiya, Lee & North, 2005 overview the most common techniques). These techniques can be roughly divided into two groups depending on whether time is encoded by animation (e.g. Kriglstein, Pohl & Stachl 2012), or by other ‘static’ variables (most often by position and orientation). Falling into the second group are two visualizations relevant to this study (as explained in Chapter 4): StreamGraphs and CircleView.

StreamGraphs are proposed by Byron & Wattenberg (2008) and Havre, Hetzler & Nowell (1999; 2000\(^59\)) as a variation of traditional area and stacked graphs (Harris, 1996). Similar to a simple line chart, a StreamGraph uses a two-axis plot where the horizontal axis (x) typically represents time. Each time series is given a layer whose

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\(^58\) These 100 visualization techniques, however, can be reduced into a smaller number of basic techniques.

\(^59\) In these two papers, the technique is called ‘ThemeRiver™’ as a trademark.
area indicates data quantities at each time point. All layers are then ‘stacked’ above each other so that the vertical axis (y) represents their cumulative areas. As shown in Figure 2.2.6.2, a time series layer is typically bounded by two curves (denoted by $g_{n-1}$ and $g_n$) where the difference between these two curves ($f_n$) indicates the frequency value or quantity of the series at a given time moment ($t_n$). Note that $g_n$ is the sum of all $f$ below it. The curve $g_0$ is called the baseline which, in traditional area and stack graphs, is just a straight line (i.e. $g_0=0$ at all time moments).

![Figure 2.2.6.2: An illustration of StreamGraph design (adapted from Byron & Wattenberg, 2008:4)](image)

StreamGraphs are also improved by using colour hues, in case of non-ordinal data such as lexical items, or colour values, in case of ordinal data such as age groups, to differentiate different time series layers. Furthermore, interpolation techniques (e.g. Cubic Splines) are used to construct smooth and continuous $g$ curves, especially when the number of time units is small, or when some time periods are missing from the data. In case of too many series, specific algorithms can be incorporated to order the graph layers for better legibility and appearance.

Due to these aesthetic advantages over traditional graphs, StreamGraphs are often favoured for the visualization of time-oriented textual (categorical) data. Havre et al. (2002), for instance, apply them to the visualization of dominant themes (i.e. frequent lexical items) in a corpus of Fidel Castro’s interviews and speeches from 1959 to 1961. Zappavigna (2011a; 2012) uses the StreamGraph tool developed by Clark

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60 The main interpolation method used in this thesis is the Akima-Spline, a widely used technique in computer graphics.
(2009) to examine co-occurrences of certain Twitter hashtags\(^{61}\). She suggests that StreamGraphs of frequently co-occurring hashtags can be useful for the study of couplings of certain attitudes and ideational entities\(^{62}\). For example, the Twitter StreamGraph in Figure 2.2.6.3 shows frequent lexical items in tweets tagged with ‘Obama’ and written immediately after his election victory. Note that the ‘#Obama’ hashtag is presented by the baseline and that each lexical item is given a stream layer whose area at any given time indicates how frequent the item is. From this graph, it can be observed that positive lexical items (e.g. hope, proud, love) tend to be coupled with Obama as their potential target (or trigger). Furthermore, StreamGraphs are also found useful for examining the logogenetic evolution of attitude choices over text time. Here, graph layers represents the relative frequencies of attitudinal instances over either conversation real time (e.g. in Zappavigna, 2010) or text time measured in clauses (e.g. in O’Donnell, 2012), as will be further discussed in Chapter 4.

![Figure 2.2.6.3: A StreamGraph of frequent lexical items concurrent with the #Obama hashtag (Zappavigna, 2011a:802)](image)

Another time-series visualization technique is the CircleView developed by Keim (2000) and further refined by Keim, Schneidewind & Sips (2004; 2007). This technique is derived from traditional pie charts and spiral graphs (e.g. Wainer, 1997; Weber, Alexa & Müller, 2001). Figure 2.2.6.4 provides an explanation of the

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\(^{61}\)“**A hashtag** is a small alphanumeric string preceded by the number sign (#). A hashtag serves as a topic identifier for finding and tracking tweets on Twitter.” (Durieux & Stebbins, 2010:186)

\(^{62}\)Similar to Zappavigna’s work is Duan et al. (2012) in which StreamGraphs are also used to visualize certain opinion features and their evaluative targets.
CircleView design. As its name implies, this technique starts by dividing a circle into as many slices as the number of time series. Each slice (Keim, Schneidewind & Sips, 2004 call it ‘attribute’) is then segmented according to the number of time intervals so that each segment represents the quantity value of the relevant series at a given time moment. These quantities are encoded in a colour hue picked from a two or three-colour scale where one hue (e.g. yellow) indicates the maximum quantity and another (e.g. green) indicating the minimum. A threshold hue (e.g. red) can also be used to denote quantities beyond a specified amount. It should be mentioned, however, that the CircleView is originally designed to visualize stock market (quantitative) data. In Chapters 4 and 5, it will be shown that this technique can be slightly modified to effectively work with evaluative language data, and that the simultaneous display of multiple CircleViews can provide a detailed comparative perspective on the corpus patterns.

Figure 2.2.6.4: CircleView design: a) CircleView of multiple time series of time; b) slice segmentation and time direction (Keim et al, 2004:181).

2.2.6.2 Dimensionality Reduction and Correspondence Analysis
The techniques discussed in the previous sections seek to visually represent all dimensions of data, whereas it is the responsibility of the user to look for possible associations and correlations in the visualization. Nonetheless, with high dimensional categorical data (i.e. a contingency table with many categories), it is often difficult to
uncover the general relationships between and across the categories of each variable. To put it differently, because the visualizations attempt to encode every aspect of the data, it can be hard ‘to see the forest for the trees’. Therefore, statistical methods for the analysis of multidimensional data can be of great use in providing a broad picture of correlation relationships among variables and categories. These methods also vary significantly according to whether the variables are quantitative or categorical. For quantitative variables, methods such as multilinear regression, analysis of variance (or covariance analysis), factor analysis and principal component analysis are commonly used (see e.g. Bingham & Fry 2010; Jolliffe 2002; Harris 1994; Gorsuch 1983). Most of these methods, if not all, have ‘categorical’ counterparts, e.g. logistic and log-linear regression (generalized from linear and multilinear regression), correspondence analysis (generalized from principal component analysis) and so on (for a survey of these methods, see Holbrey, 2006 and Fodor 2002). The focus in this section will be, again, on the categorical methods, particularly on correspondence analysis, since the linguistic data in this thesis are primarily categorical.

Correspondence Analysis (hereafter CrA) is probably the most versatile method for examining and visualizing relationships in multidimensional categorical data (Greenacre, 2010:79). It is first proposed by Hirschfeld (1935), and further developed, independently, by several researchers under different names: quantification theory (Hayashi, 1951), dual scaling (Nishisato, 1980), biplot (Gabriel, 1971), homogeneity analysis (Gifi, 1990), and correspondence analysis (Benzécri, 1969; Greenacre 1984; Clausen, 1998; Greeacre 2007a & 2007b). CrA starts with reducing the contingency table into fewer dimensions (called factors) by applying a decomposition method (known as Singular Value Decomposition SVD\textsuperscript{63}) to a matrix of the conditional probabilities\textsuperscript{64}. These factors form a lower dimensional space and each of which is given an ‘importance value’ indicating how much variance of the data the factor explains. The new coordinates of row and column categories in the lower dimensional space (called factor scores) are then used to generate a plot whose axes represent the factors. In this output plot (aka CrA map), associations, or lack thereof, between categories are determined by the distances between the points representing the categories; i.e. “the closer two points appear graphically in the plot the closer the

\textsuperscript{63} For more on the use of SVD in Correspondence Analysis see Abdi, 2007.

\textsuperscript{64} This matrix is called row or column profiles depending on whether conditional probabilities are obtained from the row or column marginals (see e.g. Abdi & Williams, 2010).
respective categories are associated with each other” (Cowie et al., 1998:202). Clusters (i.e. two or more correlated categories belonging to different variables) can also be identified by noting the distances between their respective points, as will be exemplified later.


Tabata’s study explores the distribution and usage of 34 word-classes (tagged automatically) in a corpus of 23 works by Charles Dickens, attempting to examine interrelationships between the word-classes and the texts. Figure 2.2.6.5 provides two CrA plots of texts (a) and word-classes (b). In both plots, Tabata uses the first two (CrA) dimensions which both account for about 75% of total variations in the data. That is, given their importance values, these two dimensions are practically sufficient for describing the original contingency table. Each point in the plot (a) represents a text, e.g. DC for David Copperfield, BH for Bleak House and so on. Similarly, each point in the second plot (b) stands for a word class65, e.g. VBP for non-3rd person singular present, NP for noun phrase, PP for personal pronouns etc. Distances between the text points in (a) indicates associations. For instance, since BH and ED are close to each other and are plotted in the same quadrant, the two texts are very similar in terms of the use or distribution of word classes. By contrast, because the texts PFI,

65 For the full forms of these word-class abbreviations see Tabata (2002:167).
PP and BH are too far from each other and in different quadrants, their usage of word classes is significantly different.

Figure 2.2.6.5: CrA plots of a) Dickens’ texts; b) word-classes in Dickens’ texts (Tabata, 2002:172).

As far as the general relationship between the texts and word-classes is concerned, a striking feature in Figure 2.2.6.5a, as observed by Tabata (2002:173), is that Dickens’ texts are sharply clustered by Dimension 1: serial fictions appear in the left quadrants whereas sketches occupy the right quadrants. If the plot in Figure 2.2.6.5b is examined in conjunction with (a), it can be seen that JJS(superlative adjectives), JJ(adjectives), EX(existential there), WDT(WH-determiners), NN(singular nouns) are strongly associated with sketches, while serial fictions are more dependent on other word-classes, mainly on VB(base form verbs), JJR(comparative adjectives), MD(modal auxiliaries), PP(personal pronouns). In other words, both plots can reveal “how each word-class contributes to the overall differentiation of texts” (Tabata, 2002:173). Furthermore, both dimensions in the plot (b) results in a word-class clustering showing how word classes depend on each other in Dickens’ oeuvre, as pointed out by Tabata (2002: 174). For instance, the word classes JJS, JJ, EX, and WDT form a cluster in the first quadrant, which indicates their tendency to occur with
each other. Similarly, the word classes VB, JJR, PP$(possessive pronouns), PP, and MD are clustered together in the second quadrant, due to their frequent co-occurrence.

As noted by Tabata (2002), these clusters indicate how each (dimensional) axis functionally classifies the texts in terms of word classes. The first axis separates the texts into two groups: left-hand and right-hand. The left-hand texts are characterized by “higher-situation dependence” (indicated by pronoun clustering), “emotional colouring” (modals and interjections), and “verbal style” (VB, VBP and VBD clusters) whereas the right-hand texts are characterized by “informational emphasis” (adjectival clustering), and “nominal style” (NN, NNS). The vertical axis, by contrast, separates the texts according to the tense in which they are written: present tense (above the horizontal axis) and past tense (VBD below the axis), and thus serial fictions is almost the only category affected by this dimension. In other words, the second dimension distinguishes between texts narrated in the past tense (e.g. PP The Pickwick Papers) and those narrated in the present (e.g. BH Bleak House).

The descriptive power of CrA, the rich interpretations it offers in terms of interrelations between the variables and their constituent categories, and, more importantly, its simple visualization of clustering patterns in textual data, as exemplified earlier, motivates its use in this thesis. In AppAnn, the project on which this thesis is based, CrA is employed as a visualization technique per se, and as a first processing stage for a prosody visualization technique (see Chapter 4). Furthermore, CrA will be applied to different types of categorical variables including discourse semantics variables (e.g. ATTITUDE TYPE), logogenetic variables (e.g. generic stages), and textual variables (where texts or subcorpora are the constituent categories) in order to identify significant couplings of discourse semantics features and, thus, significant bonds construing authorial identities. In addition, CrA will be carried out at different regions of the instantiation cline, as will be shown in Chapters 4 and 5.

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66 Other dimensions of Tabata’s Correspondence Analysis also explain notable temporal variations such as the diachronic changes in Dickens’ use of word classes, which cannot be discussed in any detail, given the limited space of this chapter. However, the interested reader is kindly referred to section 6.2 in Tabata (2002).
2.2.7 Summary of Visualization Design Facets, Types of Data and Coding Schemes

This section reviewed a number of visualization theoretical and empirical foundations that underpin the design of AppAnn visualizations detailed in Chapter 4. First, the visualization pipeline outlines the main design stages a successful visualization technique should go through. Second, the discussion of types of data in relation to ranking scales informs us about how to map out an effective visual coding scheme. In particular, the ranking scales suggest that nominal data (e.g. types of ATTITUDE) are better encoded by colour hues and shapes, quantitative data (e.g. frequencies of judgment) by position and slope; and ordinal data (e.g. text time) by position and animation.

Furthermore, the visualization heuristics (e.g. be aware that similar colours connote similar meanings) that result from various studies on visual perception guide the design of successful and visually coherent visualization techniques. Ranking scales as well as the visualization heuristics are taken into consideration during the design process of AppAnn techniques. Third, InfoVis concepts, particularly the Overview+Detail, Details-On-Deman and Focus+Context inform us about how to create interactive, user-friendly, and informative visualization techniques. These concepts are actively implemented in AppAnn visualizations in the form of zooming, panning, providing textual information when needed, foregrounding certain details so on.

Finally, as most linguistic data, including those obtained in this study, are categorical, a review of categorical visualization techniques identified a number of effective methods to present time-based data and reduce the complexity of multi-category data. In particular StreamGraphs and CircleView visualizations are adapted in this thesis to visualize changes in discourse semantics features over text (logogenetic) time. Furthermore, Correspondence Analysis (CrA) has been shown to be the main dimensionality reduction and correlation tool in a considerable number of linguistic studies, because of its descriptive power and simplicity of implementation. Consequently, CrA is deployed in this thesis as the main tool for identifying and visualizing couplings of discourse semantics features at different levels of instantiation, as will be described in the following chapter.
Chapter 3 The Genre of Editorials and Op-Eds

As mentioned earlier, the linguistic concern of this thesis is to explore how couplings of APPRAISAL, IDEATION and CONJUNCTION are used by editorial and op-ed writers to rhetorically align/disalign readers with a view against or for the killing of Osama bin Laden, to establish communities and identities around the killing issue, and to negotiate solidarity, belonging and affiliation through negotiation of in-group and out-group bonds that are ‘logogenetically’ proposed and construed. The aim of this chapter is to contextualise this study in relation to relevant research on the genre of editorials and op-eds, and to highlight the different ways through which this study may contribute to this body of research.

This chapter is divided into two main sections. The first section is concerned with the generic (schematic or rhetorical) structures of editorials and op-eds from both SFL and non-SFL perspectives. The main aims of this section are to

i) show how English editorials and op-eds are staged (logogenetically) to achieve their socio-communicative purposes;

ii) review models and proposals of potential generic stages of this genre;

iii) justify the adoption of the SFL Write It Right model of argumentative text types in in this thesis.

The second section is concerned with APPRAISAL and CONJUNCTION in English editorials and op-eds. It begins with a review of significant findings from studies on evaluative language in this genre. Then, it offers a review of key appraisal features that are characteristic to the media opinion genre. The main aims of this section are to

i) justify the adoption of appraisal, rather than e.g. meta-discourse analysis, as the main analytical framework for evaluative language in this thesis;

ii) identify gaps and limitations in relevant appraisal studies on editorials and op-eds; and

iii) discuss how these limitations can be overcome in order to explore identity construction, the rhetoric of affiliation and communal belonging and
alignment of readers around in-group and out-group values at different points of instantiation and individuation.

The chapter concludes with a summary identifying areas of further explorations to be conducted in the following chapters.

### 3.1 The Genre of Editorials and Op-Ed Articles

This section provides an overview of SFL-based and non-SFL schematic models of editorials and op-eds. It begins with a brief discussion of studies of this genre by linguists and discourse analysts. Next, significant non-SFL models (e.g. MacDougall, 1973; Bolívar, 1984; van Dijk, 1991; Bhatia, 1993) that describe the schematic structure of editorials will be explored. The aim is to highlight similarities, differences and limitations of these models, especially when compared to SFL-based models. Finally, the final subsection will discuss SFL schematic models of the editorial structure, focusing particularly on the Write It Right text types: media exposition, media challenge and media discussion. It will be argued that the Write It Right model is more flexible and adaptable to a larger variety of potential structures, and so is deployed in the schematic analysis of the Killing bin Laden articles in this thesis. This does not mean, however, that other models do not contribute to this analysis. In fact, it will be shown that all models discussed in this section can complement the Write It Right text types in the interest of a more robust, hybrid description of the generic structures in the thesis corpus.

#### 3.1.1 Editorials and Op-Eds: definition, significance and motivation

At the beginning of the 20th century, English newspapers began to distinguish between news and comments—between reporting events as they occur, and commenting on and re-interpreting these events from a particular subjective point of view (Diamantopoulous, 2009:16; van Dijk, 1988:124; Fellow, 2010:61; Hulteng, 1973:5; McNair, 2000:61; McNair, 2009:57). This opinion/fact dichotomy gave rise to various journalistic genres, most notably the news story (or hard news) and feature articles (or soft news), editorials (or leading articles), Op-Ed commentaries and columns. Hard news is concerned with ‘spot news’ and serious events whereas soft news is about
human interest stories (Bell, 1991:14; Hicks et al, 2008:11); thus, both genres are typical representatives of factual journalism\(^\text{67}\). The remaining genres constitute what is referred to as opinion journalism\(^\text{68}\) (Kaid & Holtz-Bacha, 2008:118; see also Bednarek & Caple, 2012; Caple, 2013).

A newspaper editorial is “an article … that gives the opinion of the editor or publisher on a topic or item of news” (Sinclair, 1995:93), which seeks “to inform, influence, stimulate and motivate readers concerning important issues” (Hynds & Martin, 1977:776) by fusing fact and opinion together in a “concise, logical, pleasing order” (Spencer, 1924:16). Editorials typically seek to express the newspaper’s opinion and stance towards an issue. They are the place where “the paper’s ideology is clarified and re-established, reasserted in relation to troublesome events” and where the paper presents “its perception of ‘reality’ in the form which it regards as most suitable for its readership” (Hodge & Kress, 1993:17). The type of stance and position adopted in an editorial is often decided and monitored by the newspaper’s editorial board (or the editorial ‘gatekeepers’) (Hutleng, 1973; Ciofalo & Travers 1994). Due to this collective point of view, rather than specifying a single author, editorials are usually unsigned, or signed in the name of the newspaper (Ciofalo, 1998:18).

Opinion columns and commentaries, by contrast, represent a personal viewpoint, frequently of syndicated and guest columnists who do not necessarily share the same opinions, assumptions, and values with the newspaper’s board (Dafouz-Milne, 2008:96). Accordingly, these articles are clearly separated from editorials and located on the Op-Ed (‘opposite editorial’) page (Wahl-Jorgensen 2004; 2008). The first modern appearance of the Op-Ed page was in the New York Times in 1970 (Socolow, 2010). Its main objective was “to afford a greater opportunity for exploration of issues and presentation of new insights and new ideas by writers and thinkers who have no institutional connection [with the paper]” (The New York Times, 1970 quoted in Day & Golan, 2005:62). Since then, several major newspapers have established their Op-Ed pages, working toward the same objective of broadening the

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\(^{67}\) Tuchman (1978) and Bell (1991) draw attention that, in most cases, the boundaries between hard and soft news are fuzzy and unclear.

\(^{68}\) Opinion journalism also includes editorial cartoons, opinion surveys, reviews, advice columns, letters to the editorial and so on which, due to limited space, are not discussed in this chapter. Some of these genres are explored in the SFL research, e.g. Todd (2012) on editorial cartoons, Chueasuai (2010) on advice columns, and Offergeld (2009) on letters to the editor.
opinion spectrum and creating a dynamic public forum for expert debate (Rosenfeld, 2000).

Editorial and op-ed articles attract the interest of linguists and discourse analysts for various reasons. First, they are considered “the most genuine examples of written argumentation” (Belmonte, 2007:2) as they, more than any type of writing, “reflect national styles regarding modes of persuasion” (Connor, 1996:143). As Ansary and Babaii (2009:213) emphasize, “the rhetorical patterns of one’s native culturo-linguistic system are likely to be more pronounced in texts such as editorials” than in other comparable genres. Secondly, some scholars suggest that editorial argumentation may prove valuable as a model for argumentation in academic discourse (Bhatia, 1993:170; So, 2005; Connor, 1996:144; Fulkerson, 1996; Kachru and Smith, 2008). This is likely a reflection of two significant factors. First, a considerable number of columnists are, in fact, academics (Ricketson, 2004:29). In a study of more than 700 columns from the New York Times, Washington Post and Wall Street Journal, Porter (2012) observes that the average percentage of academic columnists is around 34% (compared to around 31% from government representatives). A similar (but smaller in scale) study conducted by Golan (2010) on 34 columns shows that 23% of op-eds are written by academic researchers. Second, there are striking similarities and overlaps between editorials and academic essays in terms of their argumentative structure and linguistic features, as noted by Bhatia (1993:165) and So (2005:75). As will be discussed in the following section, both editorials and op-ed columns belong to the argumentative genre, and thus it is not surprising that they share key linguistic features with other argumentative texts (see van Dijk, 1991:120). Finally, a third motivation for studying opinion journalism arises from its vital role in shaping, manipulating and influencing public opinion (Wahl-Jorgensen, 2008; van Dijk, 1992). As pointed out by Reah (2002:46), the editorial and op-ed pages are places where the newspapers directly address their readers who expect to find ‘overt comment’ on everyday events, and who are, to some extent, willing, as Wallace (1992:60) argued, to take a submissive position towards this comment.

Hutleng (1973:35), Santo (1994:94) and Stovall (2005:7) describe the editorial page as the soul of journalism and the heart of the newspaper. Nevertheless, the relatively scarcity of research on editorials and op-eds in terms of their social
functions, structures and linguistic features is highlighted by a number of researchers (e.g. Ansari & Babaii, 2009; Kausar, 2011; Le, 2009; van Dijk, 1996; Vázquez, 2005; Wang, 2008). This thesis responds to this scarcity of research, designed as it is as a contribution to the body of linguistic research on this important genre of journalism. In the following subsections, key studies from different schools that have made a contribution to our understanding of media argumentation will be reviewed.

3.1.2 Generic structure of editorials and op-eds: Non-SFL models
The primary social function of editorials and op-ed articles is persuasive and argumentative (van Dijk, 1991:120; 1992:242; 1993:266; Fowler, 1991:211; McCabe & Heilman, 2007:139). Sharing the same social function, editorials and op-eds are often treated as one genre (e.g. van Dijk, 1995; 1996; 1998; Bell, 1991:13). In his seminal work, Biber (1988:195) classifies institutional editorials, personal editorials (i.e. op-eds and columns), and letters to the editor as subgenres of the Editorial genre which is “intended to persuade readers”. Lynch (2012:235) explicitly states that op-ed articles “rely upon the same writing structure as an editorial”. This subsection is devoted to a review of various proposals on the generic and rhetorical structure of editorials and op-eds from non-SFL perspectives.

The structural similarities between editorials and argumentative essays were documented in early research on this genre. Stonecipher (1979:40), for instance, describes editorial opinion columns as a kind of “journalistic essay” with the traditional three parts of introduction, body and conclusion. MacDougall (1973) proposes that a ‘good’ editorial should involve three stages: the Subject (or ‘news peg’), the Reaction and the Reasons. The Subject stage introduces the issue or event evoking the editorial. The Reaction is where the writer states their position towards the issue, whereas the Reasons stage provides sufficient arguments supporting the position being advocated.

Van Dijk (e.g. 1991:125; 1992:244) offers a schematic structure (or schema) similar to MacDougall’s. In this schema, an editorial should feature three ‘functional’ categories: Definition, Evaluation, and Moral. The Definition ‘subjectively’ summarizes the issue or event; it is about ‘what happened’ from the authorial point of view. The Evaluation explains why an event occurs and provides an evaluative account
of the reasons behind an issue. This stage constitutes most of the text as it is where “the main position must be backed up with credible arguments” (van Dijk, 1991:129-130).

Finally, the Moral provides expectations and recommendations of what should and shouldn’t be done. In this stage, the view of the writer or newspaper is distilled in the form of anticipation, advice or warning. Van Dijk (1996) alternatively calls it ‘pragmatic Conclusion’, and he observes it is an optional element in the structure of editorial (van Dijk, 1993:265).

Katajamäki and Koskela’s (2006) build upon van Dijk’s model in their study of twenty two editorials from English, Swedish and Finnish business newspaper. Their analysis shows three obligatory structural elements: Introductory section (equivalent to the Definition), Intermediate section (equivalent to the Evaluation) and Coda. The Introductory section is where the thesis is stated in relation to some event or issue. The Intermediate section has two elements: Intermediate stage which is obligatory and present in all editorials, and Solution stage which is optional (present in eight editorials). The Coda also consists of two elements: Conclusion (obligatory and present in all editorials) and Moral (present in seven editorials).

By contrast, Bhatia (1993; 1994) adopts a ‘rhetorical move structure’ (Swales & Bhatia, 1983; Swales, 1990), based on an ESP (English for Specific Purposes) perspective on genre. He argues that since editorials aim to present and defend a particular stance and to persuasively convey opinions and views, they must share common characteristics with academic writing. Consequently, he suggests that the four-move structure of academic discourse is applicable to editorials (Bhatia, 1994), regardless of the individual differences in “style, stance and substance” between one editorial and another (Bhatia, 1997:362).

Bhatia’s proposed schema consists of four moves69: Presenting the Case, Offering the Argument, Reaching the Verdict and Recommending Action. The first move is about the actual world events ‘what happened’, defining and clarifying areas of concern. The second move, Offering the Argument, discusses possible views on the issue at hand (‘the world of possibilities’) and justifies the view advocated in the editorial. The Reaching the Verdict move concludes with ‘what should be or what

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69 Most of these models seem to presume that editorials and op-eds are always hortatory expositions. Wang (e.g. 2006 and 2008), by contrast, show that English editorials can also be analytical expositions. Analytical exposition is discussed in section 3.1.3.
should have happened’ based on the arguments presented in the earlier move. Finally, the Recommending Action move advances anticipations and expectations, suggesting “how the desired world of events should be realised” (Bhatia, 1993:165).

From a different perspective, Bolívar’s (1984 & 1994) study of twenty three editorials from the Guardian proposes that the schematic structure of an editorial, or any similar written text for that matter, can be sufficiently described by the ‘triad’ structure. Her concept of triad is based upon Sinclair & Coulthard’s (1975) notion of ‘exchange’ which is the minimal unit of interaction in a conversation (Stubbs, 1983). The triad, according to Bolívar (1984:141), is the basic unit of interaction in written text. Like an exchange, which consists of three parts: Initiation, Response and Feedback, the internal structure of a triad consists of three turns: Lead (L), Follow (F) and Valuate (V), where each turn is realized by one or more sentences. The function of a Lead is to introduce “the ‘aboutness’… of the triad and a posture or modality” (Bolívar, 1994:280). The Follow is both a response to and evaluation of the Lead. The Valuate functions as a closure of the triad and “an evaluation of the preceding two turns” (p. 281). A triad may consist of more than one sequence of Lead/Follow turns, but must close with one Valuate. Triads can combine with each other, forming a larger unit called ‘movement’. A movement, in turn, can combine with other movements to form the highest rank unit: ‘artefact’. The transition between one movement and another is mediated by ‘boundary’ triads which function to organize the discourse, as opposed to ‘content’ triads whose main function is to relate the text to the external world. Furthermore, triads can serve different functions depending on their position in the movement. For instance, Situation Triads tend to occur at the beginning of a movement and function to introduce an event, whereas a Recommendation Triad usually occurs at the end of the movement to provide a final evaluation of the event. Bolívar (1994:283) also classifies movements into three types: A, B and C. These three movements tend to occur consecutively where movement A is about the actual world, B is about the world of possibilities, and C the world that ‘should be’. As a sequence, these movements are functionally equivalent to the previously discussed Bhatia’s schematic moves: Presenting the Case, Offering the Argument and Reaching the Verdict, respectively. Figure 3.1 shows an example of Bolivar’s model applied to a part of an English editorial.

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70 Sinclair & Coulthard’s (1975) work is in turn influenced by Halliday’s early theory of Cateory-and-Scale in the 1960s.
Bolívar (2001:138) points out that turn-change (e.g. from Lead to Follow) is often accompanied by changes in linguistic patterns. More particularly, she notices that change in modality is probably the most potent indicator of turn-change in editorials, which emphasises the interpersonal-orientation of the triads in the editorial genre. However, there are still three open questions future work should investigate, as noted by Bolívar (1994:292-294). The first is whether there are triads that consist of turns other than the three discussed above. The second question is whether the triad structure is present in other argumentative genres. The third regards universality: whether the triad structure is present in editorials of other languages. One particular study attempting to answer the last question is conducted by Riazi and Assar (2000) on sixty Persian editorials from six different papers. They conclude that the schematic structure of Persian editorials is in fact organized in triads, and that, as far as triad patterns are concerned, the simple turn sequence L→F→V is the most frequent in the corpus.
Bonyadi (2010) applies a hybrid model of both Bhatia’s rhetorical moves and Bolívar’s triads to his analysis of forty ‘criticism’ editorial samples from the New York Times and the Tehran Times. His analysis first divides each article into three...

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71 Hall (2003:159) asserts that editorials can be of different kinds, most commonly criticism, attack, defence, endorsement, and appeal.
sections, using the traditional labels of Introduction, Body and Conclusion. The Introduction section, as his analysis shows, consists of two structural elements: **Orientation** and **Criticism**. The **Orientation** element is equivalent to **Presenting the Case** in Bhatia’s model as its function is to engage the readers with the topic.

Bonyadi’s findings show that, unlike the **Criticism** move, the **Orientation** is an optional element since it is absent from some editorials. For the analysis of the Body section, Bolivar’s triads are deployed. Bonyadi shows that while the whole Body section is equivalent to Bhatia’s **Offering the Argument** move, its structure is actually composed of content triads, and that the sequence L→F→V is the most dominant pattern of these triads. Finally, this study also suggests that the Conclusion of ‘criticism’ editorials is more equivalent to the **Recommending Action** than **Reaching the Verdict** in Bhatia’s schema. Furthermore, the Conclusion may consist of two moves: **Information Comment** and **Making a Prediction/Stating a Necessity**. Bonyadi (2010:335) argues that only the latter seems obligatory. It is not obvious, however, whether the Conclusion, as well as the Introduction, in Bonyadi’s analysis are describable by Bolivar’s triads.

Table 3.1 below provides a comparative summary of the previously discussed schematic models of editorials. The table reveals some similarities and differences between the seven models. Most notably, all models concur that the schematic structure of an editorial is not different from that of an academic essay with the three main parts of introduction, body and conclusion. These parts are given ‘functional’, rather than ‘position’ labels— e.g. Subject, Definition, Move A, Presenting the Case in lieu of ‘Introduction’. And, the rhetorical functions of these structural elements are basically the same across the models. The first stage or structural element in all models has the same function of introducing an issue or event at hand and stating a position taken by the writer/newspaper. The second stage involves presenting the arguments behind that position. The third stage concludes with a moral, recommendation, prediction and/or a call for some action. A clear exception of this tripartite orientation is Bhatia’s model which proposes two concluding moves instead of one: **Reaching the Verdict** and **Recommending Action**. However, Bonyadi’s (2010) work shows that these two moves are in fact ‘combinable’, which is also presumed by the other three-part models. Another structural exception is the optional **Moral** stage in van Dijk’s (1991) schema, which may suggest that an editorial can exclude any explicit concluding
elements. However, Katajamäki & Koskela (2006) argue that while the Moral can be skipped or ignored in the Coda stage, the Conclusion is found to be obligatory.

() indicates optional move/structural element/stage

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<tbody>
<tr>
<td>Schematic Structure</td>
<td>Subject</td>
<td>Introduction</td>
<td>Move A [the actual world] S Triad D Triad R Triad</td>
<td>Definition</td>
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<td></td>
<td>Reaction</td>
<td>Body</td>
<td>Move B [the world of possibilities] S Triad D Triad R Triad</td>
<td>Evaluation (Moral)</td>
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<tr>
<td></td>
<td>Reasons</td>
<td>Conclusion</td>
<td>Move C [the world that should be] S Triad D Triad R Triad</td>
<td></td>
</tr>
<tr>
<td>Schematic Structure</td>
<td>Presenting the Case</td>
<td>Introductory Section Intermediate Section Intermediate Stage</td>
<td>Introduction (Orientation) Criticism Body Argument [as triads] Conclusion (Info Comment) Making Prediction/Stating a Necessity</td>
<td></td>
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<tr>
<td></td>
<td>Offering the Argument</td>
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<td>Reaching the Verdict</td>
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<td></td>
<td>Recommending Action</td>
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Table 3.1: A summary of non-SFL schematic models of editorials

In conclusion, each model in this table seems to assume that the social purpose and, thus, the schematic structure of editorials are fixed and invariable. Models that
takes into consideration optional schematic elements (i.e. Katajamäki & Koskela, 2006; van Dijk, 1991; and Bonyadi, 2010) or iterative schematic elements (i.e. Bolívar, 1984) account, to some extent, to ‘structural flexibility’ of editorials and op-eds. Most importantly, these papers, as pointed out by Martin (2014 & forthcoming), do not sufficiently address the issue of the realization patterns that characterize each stage; some focus on the global grammatical features that distinguish the genre of editorial from other genres (e.g. Bhatia, 1993), some depend on the frequencies of lexical items as their criteria to describe the schematic stages (e.g. Bonyadi, 2010), while others base their models mainly on ‘intuition’ (particularly Katajamäki & Koskela, 2006; and van Dijk, 1991). In the following subsection, we will see that the SFL-based Write It Right model is more versatile as i) it accounts for various specific purposes of argumentation (e.g. arguing for a point, arguing against a point, arguing from different perspectives and so on), and ii) it is based entirely on the assumption that linguistic patterns will vary not across genres but also across schematic stages.

3.1.3 Generic structure of editorials and op-eds: SFL based models

The schematic structure of editorials and op-eds has also been investigated in a number of SFL based studies, most notably the work of Rick Iedema, Susan Feez and Peter White (1994) on media discourse as part of the Write it Right project under the leadership of J. R. Martin. This work (hereafter referred to as WiR) argues that editorials, opinion articles, discussions and letters to the Editor belong to three text types\(^{72}\): Media Exposition, Media Challenge and Media Discussion (Feez, Iedema & White, 2008:69,178). These three media text types are agnate to the factual genre family of exposition, challenge and discussion observed mainly in school essays (see e.g. Martin, 1984; Martin, 1989; Martin & Rose, 2007:137). Accordingly, a brief discussion of this genre family can highlight the kinds of schematic structures expected in editorials and op-eds.

According to Martin (2001b:297-298), an exposition has the social purpose of presenting arguments as either “why some particular interpretation of events is in fact the case” (i.e. analytical exposition) or “why something should be done – a kind of macro-modulated declarative – meaning ‘this should be done’” (i.e. hortatory

\(^{72}\) Following e.g. Martin & Rose (2007), I use the term ‘text type’ in this thesis to refer to particular sub-types of a given genre, e.g. the text type ‘media exposition’ of the genre ‘media argumentation’.
exposition). The schematic structure of exposition consists of three stages: Thesis \(^{73}\) Arguments \(^{73}\) Reiteration (Martin & Rose, 2012). The Thesis establishes the writer’s position towards an issue, which is then supported by one or more arguments and eventually restated as a conclusion. The major difference between the analytical and hortatory types of exposition lies in the nature of the thesis being proposed. In a hortatory exposition, the thesis is moral, “concerning itself with whether a certain state of affairs is right or wrong, good or bad, and … whether there is something political to be done about it – or some action to be taken”; it is thus the preferred text type in editorials, letters to the editor and similar texts (Martin & Peters, 1985:67). The thesis of an analytical exposition is often factual: it is about “the way the world is, true or false” (p.68), and therefore this text type is common in academia.

Whereas an exposition argues for a thesis, a challenge “sets out to demolish an established position, effectively an anti-position” (Martin & Rose, 2012:315). The first stage of a challenge introduces the position challenged, then rebuttal arguments are advanced, and finally the anti-thesis, the alternative position, is presented. This results in the schematic structure: Position Challenged \(^{73}\) Rebuttals \(^{73}\) Anti-Thesis (Martin, 2001b). The argumentative discussion, by contrast, aims to survey an issue from two (or more) different perspectives, and to provide arguments both for and against the different positions towards the issue. An argumentative discussion is schematically structured in three stages: Issue, Sides and Resolution (Callaghan & Knapp, 1989; Martin & Rose, 2007:137; Martin & Rose, 2012:351)\(^{74}\). At the Issue stage, different perspectives are introduced. The Sides stage presents the arguments and counter-arguments for each issue. Then, the Resolution concludes with either a preferred position or an evaluation of weaknesses and strengths of each perspective. As far as the distinction between these text types is concerned, Martin & Rose (2007:137) propose that the sides of an argument can be topologically viewed as a continuum from one-sided to multi-sided argument. Expositions fall near the one-sided end, discussions on the multi-sided, and challenges somewhere in the middle.

Feez et al. (2008) suggests that the schematic structures of editorials and op-ed commentaries share close resemblances with those of school argumentative genres.

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\(^{73}\) The notation used to describe the schematic structure of a text type consists of carets ‘\(^{n}\) to mean ‘followed by’ and brackets to denote optional stages (see Martin & Rose, 2012:8-9).

\(^{74}\) Note that Coffin (1996) proposes a similar structure for history discussions with an optional Background stage preceding the Issue. She also uses the labels Perspectives and Position instead of Sides and Resolution, respectively.
However, there are some differences. First, while the Resolution stage is obligatory in school discussions, it is replaced with an optional Recommendation stage in media discussions, which may provide “a conclusion in favour of one of the views discussed” (Feez et al, 2008:190). A second difference stems from the organization of the Issues stage. Whereas in school discussions, the ‘for’ and ‘against’ arguments may be realized together in the same stage with some internal phasing (see e.g. Martin & Rose, 2012: 351), in media discussions they tend to be separated as distinct stages (cf. Coffin, 1996), resulting in the schematic structure: Statement of Issue ^ Arguments for ^ Arguments against ^ (Recommendation); or Statement of Issue ^ Side 1 ^ ... ^ (Recommendation). Third and lastly, media expositions may involve an optional stage Orientation that usually precedes the Thesis. The purpose of this stage is to provide background information on the issue before the author explicitly states their position towards it. Figure 3.2 provides an example of a media exposition op-ed.
An alternative schematic structure is proposed by Ansary & Rabaii (2005; 2009) whose study is based on Halliday and Hasan’s (1989) notion of Generic Structure Potential (GSP). Their analysis of thirty editorials from the *Washington Times* concludes with four obligatory elements and four optional ones. The obligatory structure is given as *Headline* (H) ^ *Addressing an Issue* (AI) ^ *Argumentation* (A) ^
Articulating a Position (AP). The functional labels of these elements are self-explanatory and they resemble, to a great extent, those presented in the previous models. As Ansary & Rabaii (2005:282) explain, AI serves as a motivation for the editorial by indicating that there exists an issue that needs to be debated. AP functions as a conclusion where the authorial position is explicitly clarified and stated. These obligatory stages can be supported with optional Background Information (BI), Initiation of Argumentation (IA), Closure of Argumentation (CA) or Closing Remarks (CR). BI provides sufficient information about the issue at hand and, thus, tends to precede AI. IA opens up the argumentation usually, as Ansary & Rabaii (2009:222) exemplifies, by recognizing a different point of view which is soon to be refuted in the Argumentation obligatory stages, whereas CA supports the Argumentation by highlighting the consequences of the authorial position; i.e. the ‘therefore’ of the author’s argument. CR is a final optional element serving to round off the editorial after articulating the authorial position.

Ansary & Rabii’ take a further step by providing the probabilities of two optional stages in their corpus as follows: BI (49%) and CR (33%). They also notice that these probabilities are conditioned by the newspaper: the distribution of BI and CR is comparatively more frequent in the non-native English newspapers Iran News and the Pakistan Today. However, no distributional information is provided about IA and CA. As far as the validity and generalizability of this model are concerned, Fartousi & Dumanig (2012a; 2012b) confirms only three obligatory elements: H, AI and A, and three optional elements: BI, IA and CR. They also suggest a further optional stage under the label ‘Articulation of Solution’. Although their corpus is small in scale when compared to Ansary & Rabii’s, their observations are consistent with another GSP-based study conducted by Shokouhi & Amin (2010). In this later study, the findings, supported by a lexicogrammatical analysis of ninety editorials from six English and Persian newspapers, confirm that only H, AI and A are obligatory.

The SFL-based schematic models of editorials and op-eds are summarized in Table 3.2 below. As can be seen when comparing this table with Table 3.1 above, there are remarkable similarities between all ten proposed models. In a nutshell, these models concur that, at least, three stages are required for an editorial to achieve its (communicative, rhetorical and social) purpose. The first stage introduces the issue, the
second arguments for or against it, and the final stage wraps up the arguments by explicitly declaring a certain position. This leaning towards a tripartite structure seems to be generalizable to other languages as well (see e.g. Sano 2008 on Japanese editorials; Wang 2006 on Chinese; Riazi & Assar 2001 on Persian). Optional stages also contribute to this similarity. One example is the functional similitude between the Orientation stage in WiR, and the Background Information in Ansary & Rabaii’s and Shokouhi & Amin’s. Another example is the similarity in purpose between Recommendation stage in WiR and the Articulation of Solution in Shokouhi & Amin’s and Fartousi & Dumanig’s.

For the analysis of editorials and op-eds in this thesis, however, WiR will be the main model of schematic structure due to a clear advantage – flexibility. WiR is able to account for more types of editorials and op-eds since it offers three text types to choose from. This flexibility also resolves irreconcilable differences between models, especially in terms of stages being considered optional in some models and obligatory in others. A notable example is the concluding stage, which is optional in van Djik’s model (as Moral), Shokouhi & Amin’s and Fartousi & Dumanig’s (as Articulation of Solution and Closing Remarks), and obligatory in other models such as Bhatia’s and Ansary & Rabaii’s. WiR offers a ‘bipartisan’ solution by treating this stage as optional in case the editorial fits a media discussion, and obligatory otherwise. Another example is the Articulating a Position stage in Ansary and Rabaii’s model, which Shokouhi & Amin’s and Fartousi & Dumanig’s argue it is optional. Again, WiR offers a compromise by treating this stage as optional in media discussions only. Finally, while most of the previous models specifically focus on editorials, the three text types of WiR are presented applicable to media opinion articles in general (Feez et al., 2008:178). Wang’s (2006) study of fifty op-ed articles from English and Chinese newspapers confirms WiR’s diversity of application. For instance, his findings show that media expositions are the most dominant text type in English op-eds, while media discussions are more strongly preferred by Chinese writers. Furthermore, the WiR is strongly based on the assumption that the schematic structure of texts is realized by recurrent (textual, ideational and interpersonal) patterns of meaning (Martin, 2014). Other SFL-based models in Table 3.2 also involve some linguistic criteria for identifying generic stages (e.g. orthographic paragraphs, certain conjunctions). However, Hasan’s GSP (e.g. 1985b), on which these models are mainly based, leans
strongly towards ideational patterns as “obligatory elements of genre structure appear to be determined by field” (Martin & Rose, 2007:309; see section 2.1.1.6 in Chapter 2). In Chapter 5, generic stages of the three text types in the bin Laden Killing corpus will be re-interpreted from an individuation/affiliation perspective, showing the role of each stage in the negotiation process of identities and community belonging through negotiating in-group and out-group values and bonds. And in doing so, both interpersonal and ideational meanings will be taken into ‘analytical’ consideration.

| () indicates optional move/structural element/stage |
| Media Exposition | Media Challenge | Media Discussion | Headline | Headline |
| **Headline** | Headline | Headline | (Background Information) | (Background Information) |
| **Orientation** | Position Challenged | Statement of Issue | Addressing an Issue | Addressing an Issue |
| **Thesis** | Arguments For | (Initiation of Argumentation) | Argumentation | Argumentation |
| **Arguments** | Arguments Against | (Initiation of Argumentation) | Articulating a Position | (Closing Remarks) |
| **Reiteration of Thesis** | (Recommendation) | Argumentation | Articulating a Position | (Closing Remarks) |

Table 3.2: Summary of SFL-based schematic models of editorials
3.2 Linguistic Features of Editorials and Op-Ed Articles

Editorials and op-eds are not only differentiable in terms of their schematic structure but also in terms of the linguistic features and strategies they deploy to fulfil their social purpose and to engage with their social context. As discussed previously in section 2.1.1.6, this is a fundamental assumption of the Genre and Register theory in the Sydney school: linguistic “realization patterns will differ across genres” and “across schematic stages” (Eggins & Slade, 1997:235; Eggins, 2004:66). As the main objective of this thesis is to investigate identity construction and negotiation through community bonds in the bin Laden’s killing corpus, the kind of ‘linguistic realization patterns’ we are concerned with here are those that construe bonds and rapport within and outside communities (i.e. attitudes, evaluations and emotions), regulate or orchestrate negotiations of in-group and out-group values (engagement), and organize those negotiations in a logical way (conjunction). This section offers a review of key studies on appraisal and conjunction in editorials and op-eds. It begins with a brief discussion of non-Appraisal studies on evaluation and emotion in this genre including Biber’s multidimensional approach (e.g. 1988) and metadiscourse-based frameworks (e.g. Dafouz-Milne, 2008). The aim here is to identify principal evaluative features expected in this genre and to highlight analytical gaps that are resolved in appraisal theory.

Following this review, a detailed discussion of studies that investigate appraisal in media opinion texts will be provided. The objective of this discussion is two-fold. First, it helps us obtain an overall picture of the expected appraisal patterns in the Killing bin Laden corpus (e.g. frequent choices of judgment). Second, it provides a basis for arguing that the rhetorical construction of authorial identities, negotiation of communal belonging, and aligning readers strategically around shared bonds require that

i) we move beyond single features of appraisal and conjunction and consider combinations (couplings) of and interactions between these features at different points along the cline of instantiation (e.g. at the level of corpus and the level of text);

ii) we explore these combinations and interactions both paradigmatically (e.g. what appraisal couplings are favoured over others) and
syntagmatically (e.g. what appraisal couplings are more likely to come next); and

iii) we examine the instantiation patterns of appraisal couplings both synoptically (from a text-as-a-product perspective) and dynamically (from a text-as-a-process perspective) over logogenetic time.

Finally, the attention will be shifted to conjunction in editorials and op-eds. The aim will be to provide a critical review of relevant studies, focusing on the logogenesis of conjunctive relations and the dynamic interplay between logical and interpersonal meanings in this genre. Again, this review provides an overall picture of expected patterns of conjunction in the Killing bin Laden corpus and highlights gaps and limitations that should be dealt with in the following chapters.

3.2.1 APPRAISAL in Editorials and Op-Eds:
The strong relationship between persuasion and emotion was well recognized by ancient philosophers and rhetoricians. In his model of persuasion, for instance, Aristotle asserted that emotional appeals (*pathos*) is one of the key devices, alongside *ethos* (speaker’s credibility and authority) and *logos* (logic) (see e.g. Duke, 1990). In *de Oratore*, the Roman philosopher Marcus Tullius Cicero (43 BC) argued that emotional appeals are as important to arguments as appeals to ethos and logos (quoted in Crowley & Hawhee, 2011:214). In order to secure their persuasive goals, media texts also appeal to emotions – emotions towards things, situations, issues, people and even propositions. What distinguishes editorials and op-eds from other media genres such as hard news is that their rhetorical appeals to emotions are persistently overt (McCabe & Heliman, 2007:139), and highly dense (Lemke, 1998:40) as will be seen in this subsection.

The use of emotional and evaluative language to persuade in editorials and op-eds is explored by a number of non-SFL and SFL-based studies. A key non-SFL example is the work carried out by Biber (1988). In this study, a corpus of 410 texts of spoken and written British English sampled from the LOB and London-Lund corpora were automatically analysed in terms of 67 linguistic (lexical and grammatical)
features. Then, a multidimensional analysis (see section 2.2.6.4 above) was applied to the frequency counts of these features, resulting in six clusters of texts. These clusters were labelled according to distinct dominant features presented in Table 3.3 below.

While the editorial genre (i.e. editorials, op-eds and letters to the editor) is neutral in terms of some dimensions, Biber’s analysis shows positive scores in the first and sixth dimensions and a negative one in the second dimension. That is, this genre is more informational than involved, closer to the non-narrative pole than the narrative one and more explicit in presenting authorial stances. However, the highest positive scores for editorials lie on the fourth dimension, Overt Expression of Argumentation, indicating that the most distinct features of this genre are the presence of modal and suasive verbs. Biber further notes that this dimension also shows some distinction between the three editorial subgenres as institutional editorials have a score of +9.3, personal editorials (i.e. op-eds) +7.4 and letters to the editor +9.2. Hence, Biber (1988:195) concludes that personal editorials are the least persuasive and argumentative within this genre.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Distinct Features</th>
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<tbody>
<tr>
<td>1 Involved vs. Informational Production</td>
<td><strong>Involved</strong>: verbs like think, wish, feel; copula verbs; contractions</td>
</tr>
<tr>
<td></td>
<td><strong>Informational</strong>: higher frequency of nouns and less repetition</td>
</tr>
<tr>
<td>2 Narrative vs. Non-narrative Discourse</td>
<td><strong>Narrative</strong>: past tense, third person pronouns, perfect tense</td>
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<td></td>
<td><strong>Non-narrative</strong>: present tense and attributive adjectives</td>
</tr>
<tr>
<td>3 Situation-dependent vs. Elaborated Reference</td>
<td><strong>Situation-dependent</strong>: time and place adverbials</td>
</tr>
<tr>
<td></td>
<td><strong>Elaborated</strong>: nominalizations, phrasal-coordination, WH-relative clauses in object position</td>
</tr>
</tbody>
</table>
| 4 Overt Expression of Argumentation           | Infinitives; modals of prediction, necessity and possibility; conditional subordination; and suasive verbs (Quirk 75 Suasive verbs (see e.g. Quirk et al. 1985:1182) fall into the AFFECT subsystem of APPRAISAL e.g. urge, demand, desire, prefer and entertaining ENGAGEMENT e.g. suggest.)
The linguistic features associated with these six dimensions, as Biber (1988:169) points out, are not sufficiently representative of the original 67 features. This is particularly evident in case of the sixth dimension since persuasion and argumentation are achieved not only through modality (i.e. the evaluation of propositions and proposals) but also through evaluative expressions towards things and people as argued by appraisal analysts (e.g. Martin, 1995b). Even Biber & Finegan’s (1989) extension of this model in which the focus is shifted to ‘stance markers’ (e.g. affect markers, hedges and different modals) fails to address the potential diversity of evaluative resources and their realizations. In fact, in this latter study, editorials and op-eds are grouped alongside news reports under the Faceless Stance which is characterized by “the relative absence of all affective and evidential stance features” (Biber & Finegan, 1989:108). Such finding does not seem to be in accord with Biber’s (1988) analysis.

To account for a wider range of attitudinal and evaluative realizations, a number of studies approach persuasive rhetoric in editorials and op-eds from a metadiscursive perspective. In these studies, the term metadiscourse is used in the same sense as in Crismore (1989), Hyland (1997; 1998a) and Vanda Kopple (1985), and can be defined as:

“a cover term for self-reflective expressions used to negotiate interactional meanings in a text, assisting the writer to express a viewpoint and engage with readers as members of a particular community.” (Hyland, 2005:37)

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6 At least, in this study, editorials (including op-eds and letters to the editor) show some correlation with the Doubt Stance; a stance associated with information written expositions.
There are two broad categories of metadiscourse markers: those which “allows writers to show readers how different parts of the text are related and how they should be interpreted”, and those which “permits the writer to express their attitudes toward the proposition … and toward their readers” (Crismore, Markkanen & Steffenson, 1993:40). From a Halliydian perspective, the former category of markers serves a textual function and are referred to (by Hyland) as ‘textual markers’ while the second serves an interpersonal function and thus labelled ‘interpersonal markers’ (Hyland, 2005:26). The focus in this section is on the interpersonal category (textual markers will be discussed in section 3.2.2 below).

As far as metadiscourse in editorials and op-eds is concerned, Aertselaer and Dafouz-Milne (2008) compares two corpora of 12 English and Spanish editorials in terms of usage patterns of both interpersonal and textual markers. The interpersonal category in this study is divided into three sub-categories: hedges (e.g. perhaps, may, it is likely), certainty markers (e.g. clearly, certainly, it is obvious) and attitude markers (e.g. it is necessary; unfortunately, surprisingly). Their analysis show that Spanish editorials depend mainly on certainty markers, tending to make a point forcefully, whereas English editorials use more hedges in order to mitigate monopolistic positions and represent a more democratic authorial identity (Aertselaer & Dafouz-Milne, 2008: 97). However, the interpersonal markers explored in this study still lack diversity. Dafouz-Milne (2008), by contrast, extends the interpersonal category by adding ‘attributers’ such as X claims that…, as the Prime Minister remarked, and ‘commentaries’ under which rhetorical questions, personalisations (e.g. the polls are telling me), inclusive expressions (e.g. we all believe) and direct address to readers (e.g. you must understand) are included. This study also extends the attitude markers considered by adding a set of attitudinal adjectives (e.g. it is surprising, it is absurd) and attitudinal verbs (e.g. I feel, I hesitate to say). The analysis, which is based on 16 English and Spanish editorials and op-eds, shows that English articles depend more on interpersonal markers than the Spanish. In addition, while hedges and deontic verbs are almost equally distributed in all texts, English articles show more preference to ‘attributers’— including rhetorical questions, a preference that is also noticed by Noorian & Biria’s (2010) study on American and Iranian op-ed articles. The overall usage patterns of interpersonal markers, however, in Dafouz-Milne’s (2008) corpus lead to the conclusion that both English and Spanish editorials and op-eds “follow
parallel rhetorical conventions in the articulation of persuasion” (p. 103). Interestingly, Dafouz-Milne (2008) takes a further step by examining whether there is a correlation between the distributive patterns of metadiscourse markers and the degree of ‘persuasive impact’ on audience. Carrying out a survey that involves 67 readers, she concludes that articles with a balanced number of metadiscourse markers seem to be the most persuasive for the participants (p. 104).

Although the metadiscourse approach provides more elaborate and more focused categories of emotions and evaluations than those associated with Biber’s (1988) and Biber & Finegan’s (1989) dimensions or clusters, it lacks the fine granularity offered by the appraisal framework. This results in a number of analytical issues. First, the interpersonal categories seem to focus on evaluations of propositions, while avoiding those of people and things. Even the attitude markers in both Aertseelaer and Dafouz-Milne (2008) and Dafouz-Milne (2008) cover only a small set of the AFFECT subtype of APPRAISAL. Second, while the interpersonal categories distinguish, to some extent, between ENGAGEMENT and ATTITUDE, they mainly count for entertaining engagement (i.e. certain hedges) and affirming engagement (i.e. certainty markers) and ignore, or at least sideline, other meanings that would be analyzed as pronouncement and endorsement in APPRAISAL. Even Dafouz-Milne’s (2008) category of ‘attributers’ does not differentiate between X claims (distancing attribution), X argues (acknowledging attribution) and X convincingly argues (endorsement). Third, while the attitude category seems to account for some countering expressions such as amazingly, unfortunately etc. it includes formulations that would be analyzed as entertaining engagement such as I think, I believe. Dafouz-Milne’s (2008), however, does distinguish between I believe and we all believe (which would be analyzed as engagement: pronouncement in appraisal) by including the latter under a separate category. Hence, interpersonal metadiscourse analysis does not seem adequate to provide a detailed account of how editorials and op-eds pursue their persuasive goals through various appeals to emotions. Appraisal theory overcomes these issues, (as well as others that are not addressed here; see e.g. Bednarek, 2008:13) as will be discussed next.

From an APPRAISAL perspective (appraisal is discussed in section 2.1.2.2 in Chapter 2), the key works on media texts in general have been initiated by Iedema et al. (1994),
White (1997 & 1998), Martin & White (2005) and Feez et al. (2008). In these works, appraisal is investigated mainly at corpus level—that is, at higher points of the instantiation cline discussed in section 2.1.1.2 above. Starting from the top of the cline, appraisal analysts identify two distinct keys: reporter voice and writer voice. Each key is associated with certain categorical (i.e. absence/presence) as well as probabilistic patterns of appraisal choices that are “related to particular rhetorical effects” and certain authorial personae (Martin & White, 2005: 161). Based on the analysis of 75 news reports, op-eds and editorials from four English broadsheets, Martin & White (2005) concludes that the reporter voice is characterized mainly by the absence (or very low probability) of unmediated inscribed judgement, and if inscribed judgement is present it is almost always attributed to external sources. This key is also associated with extremely low probabilities of i) authorial affect, ii) unmediated inscribed appreciation, and iii) engagement values other than monoglossia and attribution. The reporter voice, therefore, is the most preferable in mainstream news reports which attempt to be unbiased, “factual, objective and impersonal” (Feez et al., 2008:198). The writer voice, by contrast, is characterized by frequent presence of unmediated (i.e. authorial) inscribed judgement as well as the regular occurrence of entertain, pronounce and concur values. Two voices are further observed within this key: correspondent and commentator.

The commentator voice is the least constrained in terms of appraisal choices as all types of inscribed judgement (i.e. social esteem and social sanction), authorial affect, inscribed appreciation and various values of engagement can freely occur. This key is, thus, associated with editorials and op-eds articles (Martin, 2004b:279) that are “necessarily subjective, evaluative and personalised” (Feez et al., 2008:198). The correspondent voice is somewhere between the reporter and commentator voices as it is less constrained than the former and less free than the latter. The distinctive characteristics of this key include low probabilities of authorial affect and unmediated inscribed social sanction. However, unmediated inscribed social esteem (i.e. normality, capacity and tenacity) as well as unmediated inscribed appreciation are much frequent within this key than the reporter voice. White (1997:Chap 2), Martin & White (2005:170), and Feez et al. (2008:212) observe that the correspondent voice is the most associated with news features and analysis articles. To sum up, the main appraisal features linked to each voice are provided in Figure 3.3 below.
Moving down the instantiation cline (Figure 2.1.2.9 in the previous chapter), namely from key to stance, certain patterns of APPRAISAL options within a given ‘key’ can be identified. As far as the commentator voice (the key mainly associated with editorials and op-eds) is concerned, Martin & White (2005) observe three commentator sub-keys or stances: damning, excusing and sceptical. Each stance ‘inherits’ a set of APPRAISAL features (as well as some possible couplings of these features) that the commentator voice affords. The ‘damning’ stance is associated with systematic favouring of judgement, particularly of social sanction, over affect and appreciation. Characteristic to this stance is also the frequent coupling of monoglossic negative social sanction with high force graduation, and the presence of ‘rhetorical’ triplets and quadruplets (i.e. sequences of social sanction instances often of the same polarity as in the endless plateau of poverty, disease, degradation and oppression which...). In addition to the strong favouring of social esteem over social sanction, the ‘excusing’ stance is more heteroglossic, with frequent values of attribute and entertain and less intensified evaluations. Finally, the ‘sceptical’ stance is more complex with frequent couplings of tenacity, veracity and propriety, mainly in attributed propositions. These three stances are by no means exhaustive, as Martin & White (2005:203) points out,
and the questions of whether there are more possible sub-keys of the commentator voice and whether there are more combinations of appraisal features associated with these three stances are still open and subject to further research. In Chapter 5, it will be shown that, overall, the Killing bin Laden corpus clearly exhibits a commentator voice realized by frequent use of social sanction values and a ‘damning’ stance indicated by frequent use of monoglossic and negative judgment instances. However, in order to see how various identities are constructed and negotiated in the thesis corpus, this thesis further moves down the cline of instantiation: from keys and stances to sub-keys and sub-stances, in order to identify patterns of APPRAISAL that are associated with communities around the killing issue.

Further studies focusing on appraisal in English editorials and op-eds confirm and extend the distinctive features of the commentator voice. Most of these studies adopt a corpus-based approach in a comparative context involving languages other than English. Wang (2006; 2007; 2008), for example, carried out an appraisal analysis of fifty newspaper op-eds from Chinese and English newspapers commenting on the issue of 11 September attacks. He observes that English articles show considerably higher frequencies of intensified negative judgement when compared to Chinese op-eds. That is, from the stance perspective, English writers tend to adopt a ‘damning’ stance on this issue, a stance that strongly “distinguishes ‘us’ (the western democracies) and ‘them’ (terrorists and terrorist states)” (Wang, 2006:178). This ‘damning’ stance is further accentuated by the high frequency of evaluated human entities in the English op-eds as compared to their Chinese counterparts where the frequently evaluated entities are non-human and non-specific. Even attribution, which is higher in Chinese op-eds, tends to be distancing rather than acknowledging in English articles.

Shi’s (2011) study on English editorials show that negative attitudes (mainly of judgement) are much more frequent than positive attitudes in both Chinese and English editorials. The tendency towards negative evaluations appears also in Finnish editorials as noted by Le (2009). As far as engagement is concerned, Shi’s (2011) findings conclude that engagement in English editorials is dominantly contractive, a typical feature associated with the commentator voice – as observed by a number of studies. For example, Ceng’s (2010) quantitative analysis of twenty English editorials from the
Washington Post and New York Times reveals that 44% of engagement is disclaim while 34% is entertain. McCabe and Heilman (2007) re-analyse Francis’s (1990) study on interpersonal themes in English editorials and remark that most engagement values in these articles are of pronounce and affirm. Contractive engagements also seem to be more preferred in English op-eds. Marin Arrese and Núñez Perucha’s (2006) work, for instance, reveals that while Spanish editorials tend to use various kinds of expanding engagement, English editorials show a strong preference for proclamations. Further, this latter study conclude that editorials appear to occupy an intermediate position between news reports and op-eds in terms of their “expression of writer’s subjective evaluations”, which strongly contrasts with Biber’s (1988:195) observation that personal editorials come last as far as Overt Expression of Argumentation is concerned.

As far as the rhetorical construction of identities and the persuasive negotiations of communal belonging are concerned, these studies have two significant limitations. First, while some of the global patterns of appraisal at the registerial (key) level are quantitatively described, patterns of co-occurrences of appraisal choices, on the one hand, and combinations of appraisal and other discourse semantics choices, on the other, are mostly ignored by these studies. In other words, various possible couplings (by which different community bonds are construed and negotiated and through which authorial identities are enacted) have not received sufficient attention. The current study attempts to fill in this gap (as will be seen in Chapter 5) by examining inter- and intra-systemic as well as inter-metafunctional couplings of ATTITUDE, ENGAGEMENT and ideational meanings.

The second limitation of the previous studies is the conspicuous lack of focus on the ‘logogenetic’ construction of persuasion in editorials and op-eds through diverse manipulations of appraisal choices and co-selections, and relevant logogenetic shifts in sub-keys or sub-stances. Furthermore, the influence of the text type on these choices is not adequately addressed (e.g. correlations between specific generic stages and co-selections of appraisal or constraints imposed by the social purpose on these co-selections and so on). In other words, these studies hardly touch upon the dynamics of appraisal (the questions of how, why and under what conditions appraisal choices vary as a text unfolds, features of one system (or more) couple and decouple as we move...
from one logogenetic moment to the next, sequences of appraisal choices are broken and interrupted, and so forth). The notion of appraisal dynamics developed here is based upon the distinction between text as a process and text as a product: are patterns of instantiation formalized synoptically or described dynamically? (Lemke, 1991; Halliday, 1985; Martin, 1985). Research on the dynamic aspects of evaluation and their contribution to the dynamics of persuasion in academic discourse is widespread (e.g. Barton, 1993; Chang, 2010; Chang & Schleppegrell 2011; Hood, 2004; 2006; 2010; 2012; Hoa & Humphrey, 2012; Humphrey & Hao, 2013; Hyland, 1998b; Kuhi & Behnam, 2011; Lim, 2011; Pho, 2008). In these papers, evaluation is (dynamically) explored in terms of its changing patterns over text (logogenetic) time, and often, the logogenetic unit chosen is the generic stage/rhetorical move. Hood’s (2006) work, for example, shows that each Argument stage in a research report are strongly associated with certain attitudes, e.g. the Arguing for Object of Study is characterised by negative attitudes of AFFECT and APPRECIATION, whereas the Arguing a Need for New Knowledge phase is strongly associated with positive APPRECIATION. The target of negative attitudes in the Arguing for Object of Study is the circumstances that motivate the study while positive appreciation in the latter phase tends to target the researcher’s work. That is, it is not only the shift in attitudinal polarity (i.e. from negative appreciation to positive appreciation) that contributes to the persuasive construction of the author’s argumentation, but also the shift in the kind of ideational entities coupled with these attitudes (i.e. from circumstances to the researcher’s own study). In undergraduate biology research warrants, Humphrey and Hao (2013:44) notice similar evaluative patterns at the Description of Research Findings and the Research Justification stages. In the former stage, external sources (i.e. previous studies in the field) are first ‘burnished’ through endorsed positive appreciation. The latter stage starts with a ‘tarnishing’ phase in which external studies are negatively appreciated in mainly disclaimed propositions, and then, ends with a second phase burnishing the researcher’s own study through monoglossic positive appreciation. This rhetorical sequence gives rise to a higher level sequence (burnishing → tarnishing → burnishing) that is realized not only by shifts in evaluative meanings but also by shifts in the ideational meanings (or field) coupled with these evaluations.

Given the similarities between the editorial and academic genres as noted in section 3.1 above, the question remains whether comparable logogenetic patterns of
appraisal exist in editorials and op-eds, and if not, how the dynamics of appraisal scaffolds the construction of rhetorical persuasion in this genre as we move from one schematic stage to another. Very few studies explicitly address this question, most notably Martin & White (2005, section 4.4) and Martin (2004a). The latter paper investigates how appraisal features interact with each other during the unfolding of an editorial about the 11 September events. Martin’s analysis shows how the writer strategically uses intensified negative affect (triggered by the events) and positive judgement (of Americans) to express his sympathy with Americans for their loss at the beginning of the editorial. In the next part of the editorial, the writer initiates a shift from this ‘sympathizing’ stance to a ‘criticizing’ one. Here the writer’s persuasive strategy depends mainly on frequent couplings of engagement: counter and negative judgement targeting Americans who may show xenophobic reaction and racist attitudes towards Muslims post 9/11. The last section of the editorial shows a stance requesting rationality and hope through positive affect coupled with denials. Shifts in these stances are scaffolded by certain types of internal conjunction such as consequence: counter and addition: similarity. The direct interaction between evaluation and the logic of discourse (e.g. the use of addition: similarity to maintain the prosody of negative judgement associated with the ‘criticizing’ stance or the use of consequences to intercept the prosody of ‘sympathizing’ attitudes and signal the shift to ‘criticizing’) strongly indicates that couplings of appraisal values with logical meanings are also vital in the construction of persuasion in editorials.

However, Martin does not show how these couplings, prosodic shifts, and stances interplay with the generic structure of the editorial and whether certain prosodic patterns are logogenetically dependent on certain generic stages. Although the use of orthographic paragraph as the main logogenetic unit in Martin’s analysis indicates that these patterns are in fact ‘phased’, the focus on this graphological unit makes it difficult to generalize or compare beyond this editorial in the same way Hood’s (2006) or Humphrey & Hao’s (2013) studies, for example, allow for ‘generic’ comparability and generalization. One interesting example of the kind of ‘generic’ generalizability I am concerned with here is Sano’s (2008) study on appraisal in four Japanese editorials. In this study, Sano observes that a Japanese editorial goes through three obligatory stages: Inducement (in which readers are invited to the text), Empathetic Construction (in which the writer invokes his attitudes towards an issue),
and Position (in which the authorial position is stated explicitly). Sano’s appraisal analysis shows a strong correlation between the appraisal dimension **explicitness** and these three stages. Attitudes in the Inducement stage tend to be invoked, while in the Position stage they are dominantly inscribed. The Empathetic Construction stage begins with attitudinal invocations, and ends with inscriptions. Therefore, as diagrammed in Figure 3.4 below, there is a smooth, linear shift from invoke to inscribe. This reflects the rhetorical strategy adopted by the editorial writers. The use of invoked attitudes in the first stage aims to resolve, or at least reduce, the tension between the need to convey an initial attitudinal position towards the issue and the avoidance of offending readers who may not share the same ideological position. As the writer begins to justify his position in the second stage, a ‘mixture’ of invocations and inscriptions leads “the readers towards the writer’s position, and synchronize their” own ones (Sano, 2008:113). At the final stage, target readers are expected to be ready for accepting the writer’s position (i.e. the ideal reading position is naturalized, to use Martin’s terms), and thus invoked attitudes are, to a great extent, no longer needed. Whether this prosodic pattern is generalizable to English editorials will be explored in Chapter 5 below. Needless to say, a more detailed picture of the persuasive strategies deployed by editorial and op-ed writers cannot be obtained by focusing on one dimension of **appraisal** such as **explicitness**. As Martin (2004a) shows, even interactions between appraisal, experiential (i.e. appraising and appraised entities), and logical meanings are essential in the logogenetic construction of evaluation-based persuasive strategies.

![Figure 3.4: Prosodic shifts from invoked (light grey) to inscribed (black) attitudes through the three stages of Japanese editorial (Sano, 2008:113)](image-url)
This thesis attempts to overcome the second limitation by exploring the patterning of **appraisal** and ideational meanings as text unfolds logogenetically, focusing primarily on how co-choices of appraisal (and other discourse semantics) are influenced by the social context and social purposes of the BLK articles. As far as the main objectives of this thesis are concerned, this should inform us about the staged process of identity construction in the BLK corpus, the logogenetic negotiation of communal bonds and the contextual effects of text type and schematic structure on this process. Furthermore, as the analytical apparatus of this study involves couplings of multiple systems, the resulting ‘multidimensional’ complexity can be reduced by means of the visualization techniques proposed and discussed in detail in Chapter 4.

### 3.2.2 Conjunction in Editorials and Op-Eds:

As mentioned in the previous chapters, the model of conjunction adopted in this thesis is Martin (1983 & 1992a) and Martin & Rose (2003) that is outlined in section 2.1.2.3 above. However, as far as editorials and op-eds are concerned, extremely few studies, if any, use this model for the analysis of conjunctive relations. Conjunction in this genre is commonly approached from a metadiscourse, Rhetorical Structure Theory (RST), or cohesion analysis perspective. In this section, a number of studies based on these three approaches will be discussed. My focus is again on both synoptic and dynamic patterns.

As discussed in the previous section, Biber’s (1988 & 1995) analysis shows that editorials are statistically clustered under the dimension of Overt Expression of Argumentation and Persuasion. In addition to being characterised by frequent use of modal and suasive verbs, this dimension is associated with conditional subordination (e.g. *if ... then*). That is, editorials show a marked preference for conditional clauses when compared to, for instance, official documents which strongly prefer WH-relative clauses or conversations and personal letters which are more associated with causal subordination.

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77 In addition to Martin’s (2004a) analysis of conjunction in editorials, Santosa (2009) uses Martin’s model to exemplify how an Indonesian newspaper commentary introduces its position towards an issue through external consequences in the Thesis stage and then extends its arguments by means of internal addition and comparison. However, conjunction is not the main focus of this paper.
Among print media genres, however, opinion texts show more distinct conjunctive patterns from reporting genres. Smith and Frawley (1983), for instance, notice that reporting genres seem to have a high preference for temporal conjunction (e.g. *after*, *before*, *until*, *then*), which is also confirmed by Simon-Vandenbergen (1986:32). By contrast, metadiscourse studies show that editorials and op-eds depend heavily on two types of logical markers: additives (e.g. *and*, *furthermore*, *in addition*) and adversatives such as *however*, *but* (Aertselaer & Dafouz-Milne, 2008; Dafouz-Milne, 2008). This is one area where opinion media texts substantially differs from academic writing, where spatial and temporal sequencers (e.g. *first*, *next*, *finally*) are dominant (see e.g. Hempel, 2008:683). Moreover, the use of additives and adversatives in opinion journalism seem to be culturally dependent. As Aertselaer & Dafouz-Milne (2008:95) explains, while Spanish editorials tend to build their arguments in a linear progressive pattern by means of additives, English editorials prefer a non-linear argument construction organized by means of adversatives. In other words, English writers adopt a retrogressive strategy, basing their arguments around the ‘pros and cons’ of a position in order to prove a result. Interestingly, Mauranen (1993) notices the same patterns distinguishing between Finnish and English writers. From a dynamic perspective, these metadiscourse studies do not address the logogenesis of argumentation linguistic patterns.

RST (Mann & Thompson, 1987a, 1987b & 1988; Mann, Matthiessen & Thompson, 1992) is another approach to the logic of discourse, focusing on ‘text spans’ as its unit of analysis. This theory is concerned with both logical and interpersonal relations that exist between text parts. Mann & Thompson (1988) defines 24 relations that can occur between nuclei (the most important parts of the text) and satellites (secondary, hypotactic parts that contribute to the nuclei). Examples of these relations include *Background* (a satellite providing information that increases the reader’s ability to understand the nuclear), *Elaboration* (supplementing a nucleus with more detail), *Antithesis* and *Concession* (providing positive evaluation of an element in the nucleus), *Evidence* (increasing reader’s belief in the nuclear material), *Justify* (increasing reader’s readiness to accept the nuclear material), *Solutionhood* (providing a solution to a problem presented in a nucleus), and *Motivation* (providing information that increase the reader’s desire to perform a certain action).
As far as opinion media texts are concerned, Ben (2012) is probably the most focused study of RST relations in editorials. In this study, more than 30 English editorials from Kenyan newspapers are analyzed in terms of RST relations. Synoptically, Ben (2012) shows that relations of Concession (realized in concessive conjunctions e.g. *but, however*), Contrast (e.g. *in contrast, on the other hand*), and Elaboration (e.g. *and, in addition*) are the most frequent. Dynamically, the editorial tends to be divided into two major ‘chunks’ linked by concession. As shown in Figure 3.5 below, the first part of the example text consists mainly of background and elaboration satellites setting up the thesis and the authorial position. In the middle of the text, arguments start being more explicit and condition, evidence, interpretation and evaluation satellites become more dominant. Interestingly, coupling of concessive and other interpersonal satellite such as antithesis and evaluation have the main role in constructing the argument stage and building up to the conclusion.

According to Mann & Thompson (1987b:91), concessive antithesis are often “intended to persuade, i.e. to create belief … [or] to create an attitudinal approval or interest”. In Ben’s (2012) editorial example, antithesis is also more likely to be followed by evaluation satellites (i.e. evaluative comments about the main thesis). It can also be noticed, in this RST diagram, that final evaluations are preceded and ‘reinforced’ by cause, contrast and result satellites. These satellites seem to pave the way to authorial evaluation; i.e. *as a result of/because something is the case, authorial evaluation is valid*. Furthermore, and perhaps more interestingly, is the Solutionhood relations that dominate the concluding part of the editorial, e.g. *therefore/as a result here is a question, request, or need*. As discussed in section 3.1.3 above, this is a distinctive feature of the *Recommendation* stage in the WiR model, and the *Articulation of Solution* in Shokouhi & Amin’s (2010) and Fartousi & Dumanig’s (2012) models. Finally, although Ben’s analysis does not focus on schematic stages, there is apparently a strong conditional relation linking the argument stages (units 16-28) of the editorial’s body with its conclusion (units 29-31); i.e. *if this is the case, then I conclude with the following solution*.

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78 In fact, the RST bibliography (http://www.sfu.ca/rst/05bibliographies/) shows very few studies whose main focus is editorials and op-eds. Some recent RST computational works, however, touch upon this genre as a means to test their automatic output analyses (e.g. Bal & Dizier, 2010; Stede & Sauermann, 2008; Stede, 2004).
Figure 3.5: RST diagram of an example editorial (Ben, 2012:138)

Ben (2012:139) also provides a count of the numerical distribution of RST relations in four other editorials. Overall, these editorials show RST patterns similar to those discussed above. In all editorials, elaborating satellites characterize the introductory (Thesis) stages whereas concessions dominate the body (arguments). Furthermore, evaluations tend to follow the argument stages while result and solutionhood satellites occupy the conclusion. These distributions also indicate that certain logical relations, notably sequence (e.g. *then*) and purpose (e.g. *in order to*), are not sufficiently significant in the editorial corpus. It should be noted, however, that until similar studies on native English editorials are carried out, the question of whether these RST patterns are generalizable to the English editorial genre remains open.

Martin (1992a) argues that RST “is inadequate as a representation of conjunctive structure” in texts, for a number of reasons. First, RST does not clearly account for “sandwich structures in which an initiating message is replayed to culminate a logical sequence” since it “demands that text be analysed as formed around one or more Heads” (p. 258). Second, RST does not recognize simultaneous conjunctive structures in texts as it does not allow for “more than one rhetorical relations at a time between nucleus and satellite” (p. 259). Third, RST is not sufficient
to explain “the dynamics of text as process, especially in the spoken mode” (p. 264).

Finally, RST does not clearly distinguish between external (organizing field) and internal (organizing text) conjunctive relations (see section 2.1.2.3 above). Although RST broadly classifies rhetorical relations into ‘subject matter’ (e.g. Elaboration, Circumstance) and ‘presentational’ (e.g. Motivation, Background), the distinction subject-matter/presentational is not fully equivalent to external/internal or semantic/pragmatic, as explained by Taboada & Mann (2006:436), and does not allow for simultaneous internal and external structure. For these reasons, this thesis will adopt Martin’s model in the analysis of conjunctive relations in the BLK editorials and op-eds. The focus, as will be seen in Chapter 5, will be on how internal conjunction scaffolds the logogenetic construction of identities and the dynamic negotiation of ‘against’ community bonds either across schematic stages or across affiliative phases within a particular stage.

3.3 Corpus and Methodology

This section introduces the corpus upon which this thesis is based and discusses a number of methodological and analytical issues. First, it provides a brief overview of the bin Laden killing incident, and the editorial and op-ed articles that comprise the bin Laden killing corpus. Next, criteria adopted in this thesis for the analysis of schematic structures of the articles, and for distinguishing inscribed attitudes from invoked ones, and internal conjunction from external conjunction will be outlined.

3.3.1 The bin Laden Killing Corpus (BLK)

On May 2, 2011, Osama bin Laden, the founder and leader of Al-Qaeda organization, was killed in an operation known as ‘Neptune’s Spear’ by the United States Navy SEALs inside his compound in Pakistan. While the announced objective of Operation Neptune Spear was to “kill-or-capture”, it ended with at least five deaths including the killing of bin Laden (Pfarrer, 2011; Smith, 2011; See & Wagner, 2013). The operation ignited significant national as well as international controversy over questions such as whether the operation was meant to be a capture-or-kill or, in fact, a straight kill, whether the killing was legal and morally right, whether it was possible (and better) to
capture bin Laden rather than killing him and so forth (Govern, 2012; Klaidman, 2012; Landau, 2012)(see Appendix VI for surveys about the killing).

This controversy was reflected in a number of English newspaper editorials and op-eds. For the data analysis in this thesis, a small corpus was culled from six English newspapers (online versions). The corpus consists of seven opinion articles about the killing issue. The articles were divided into two subcorpora according to whether they argue ‘for’ the killing operation (the FOR subcorpus), or ‘against’ it (the AGAINST subcorpus). Table 3.4 provides some information about the BLK articles, (the full texts and web links are given in Appendix II).

<table>
<thead>
<tr>
<th>Subcorpus</th>
<th>Newspaper</th>
<th>Type of Article</th>
<th>Headline</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGAINST</td>
<td>Guardian</td>
<td>column/op-ed</td>
<td>How Osama bin Laden perverted US justice</td>
</tr>
<tr>
<td></td>
<td>USA Today</td>
<td>column/op-ed</td>
<td>Opposing view: 'He should have been taken alive'</td>
</tr>
<tr>
<td></td>
<td>Daily Telegraph</td>
<td>column/op-ed</td>
<td>Let’s be clear: Osama bin Laden was executed – and for good reason</td>
</tr>
<tr>
<td></td>
<td>Montreal Gazette (Gazette for short henceforth)</td>
<td>editorial/op-ed</td>
<td>Osama bin Laden’s death was murder, plain and simple.</td>
</tr>
<tr>
<td>FOR</td>
<td>NY Times</td>
<td>column/op-ed</td>
<td>Killing Evil Doesn’t Make Us Evil</td>
</tr>
<tr>
<td></td>
<td>Pittsburgh Post-Gazette (Pittsburgh for short henceforth)</td>
<td>editorial</td>
<td>Justice is done: Osama bin Laden is paid back in his own coin</td>
</tr>
<tr>
<td></td>
<td>USA Today</td>
<td>editorial</td>
<td>Our view: Armed or unarmed, bin Laden got what he deserved</td>
</tr>
</tbody>
</table>

Table 3.4: The bin Laden Killing (BLK) corpus

Each article is analyzed in terms of genre, clauses, ATTITUDE, ENGAGEMENT, ideational entities (sources and targets of attitudes), and internal CONJUNCTION (the results for the full analyses are given in Appendices II, III and IV). The coding and annotating process is carried out using the AppAnn Annotation and Visualization tools.
described in Chapter 4 (section 4.2) and Appendix V. In the following section, some criteria for the grouping of texts into subcorpora, analysis of genre, APPRAISAL and CONJUNCTION are briefly discussed.

### 3.3.1.1 A Note on Grouping the Texts into ‘against’ and ‘for’ the killing subcorpora

To facilitate the discussion and visualization (in Chapter 5) of the characteristic patterns of identity in the bin Laden killing corpus, I classified the articles into two broad groups: ‘against’ the killing and ‘for’ the killing. My criteria of the grouping process is partly intuitive (i.e. it depends on my overall subjective reading of the texts) and partly empirical (as will be detailed in Chapter 5 and Appendix I). The grouping of the BLK articles is not intended, by any means, to be conclusive as it is definitely open to alternative interpretation. The purpose of this subsection is to provide some rationale for the current grouping and for the inclusion of each BLK text in either subcorpus.

Beginning with the ‘against’ subcorpus, four texts can be read as arguing against killing bin Laden instead of capturing and putting him on trial, namely the Guardian column, the USA Today column, the Daily Telegraph column and the Montreal Gazette editorial (full text of these articles is given in Appendix II.1). The Guardian column discusses how the so-called ‘war on terror’ in general and the killing in particular ‘perverted U.S justice’. Although the writer recognizes the possible positive consequences of the killing (as in e.g. “the world can breathe a sigh of relief that a dreaded enemy is no longer needs to be encountered”), the authorial position seems to be against the killing. This position (as will be discussed later) can be read from a number of unmediated evaluations, as in the United States rolled back its hollowed notions of civil liberties…and even it reliance on its own courts;…we blindly took aim at a religion…; We ran, knowingly, from the chance to hold him in custody…; We followed his lead when it came to thinking about justice.

The USA Today column also seems to argue against the killing as it promotes the ‘capture and trial’ alternative. In fact, this can be read early in the text’s headline Opposing view: ‘He should have been taken alive’. Here, the newspaper editors clearly consider this article as opposing to the editorial article in which the USA Today editorial board supports and advocates the killing (as discussed later).
The Daily Telegraph column is in fact somewhat problematic, as it can be arguably read as promoting the ‘capture and trial’ and, at the same time, presenting the killing as the only solution. This seemingly contradictory view is reflected in the article’s headline (*Let’s be clear: Osama bin Laden was executed—and for good reason*), if the intended reader is willing to read ‘executed’ as a negatively loaded word (as probably the case with humanist readers). Therefore, from one perspective, the article can arguably be read as in support of the killing. This position can be deduced from the last four paragraphs (see Appendix II.1) which mainly argue that ‘capture and trial’ were too difficult to achieve under the circumstances of the event.

From a different, equally plausible perspective, the article can be seen as promoting human rights and laws, and condemning the killing. This position can be read from a great number of authorial unmediated evaluations as in e.g. *As an explanation of killing for killing an unarmed man, this starting to get embarrassing...; This was an assassination, an extra-judicial killing and a termination with extreme prejudice...; ...urging the mass murderer should be put on trial; ...it’s civilization versus barbarism, the rule of the law versus the law of the jungle.* Consequently, the text seems to fit more under the ‘against’ subcorpus as it shares a great deal of (evaluative) linguistic features with other texts in the subcorpus.

The last article in the ‘against’ subcorpus is the Montreal Gazette editorial. The author’s position against the killing is also stated early in the headline which reads: “Osama bin Laden’s death was murder, plain and simple”. In addition, various positive evaluations of the ‘capture and trial’ choice and negative evaluations of the killing operation can be read throughout the text as in e.g. *security of our democracy is based on the rule of law; the evidence so far indicates that the U.S murdered Osama; you can’t just walk up and shoot him...; the U.S committed murder.* As far as the ‘for’ subcorpus is concerned, three texts can be read as arguing in favour of the killing operation, namely the *NY Times* column, the *Pittsburgh Post-Gazette* editorial, and the *USA Today* editorial. All articles advocate the thesis that the killing is just, morally right and justified. This position towards the killing is in fact stated in all three headlines where positive evaluations of the killing operation can be read as in *paid in his own coin* (Pittsburgh); *killing evil does not make us evil* (NY Times); *got what he deserved* (USA Today). Moreover, throughout each text, evaluations that support the
‘for’ thesis can be effortlessly read as in *bin Laden deserved to die by any means necessary*; ...*shooting to kill was a reasonable choice*; ...*he [bin Laden] owed nothing but an unpleasant ending* (USA Today); *that [killing] seems like the only civilized and morally sound response*; ...*a win that made us feel like Americans again—smart, strong and capable*; ...*Morally and operationally, this was counterterrorism at its finest* (NY Times); *[killing] is a great victory*; ...*American courage and expertise to do its job*; ...*the morality of the moment is clear. American are free to applaud the U.S forces*... (Pittsburgh).

3.3.2 Methodology and criteria for analysis
Based on the WiR model of genre (discussed in section 3.1 above), each text in the BLK corpus is analyzed in terms of its schematic structure. This involves classifying the text’s genre, identifying the boundaries of its generic stages and labelling each stage according to the text type to which the text belongs. It should be emphasized here that the genre analysis (detailed in Appendix II.2) is by no means conclusive. The analysis is definitely open to interpretation, on the one hand because of the varying descriptions of the editorial genre as discussed in section 3.1 above, and on the other hand due to other possible readings of the linguistic patterns that characterize each text.

The main purpose of the genre analysis in this thesis is to provide a practical context in Chapter 5 for illustrating how the dynamic visualizations proposed in Chapter 4 (section 4.2) can be applied in discourse analysis. Generic stages in this regard are considered to be one important aspect of the dynamics of logogenesis (as demonstrated in section 5.2 below).

This does not mean, however, that the analysis is purely intuitive. In Appendix II.2, some linguistic evidence that motivates the text type classification and staging is provided. For instance, boundaries defining every stage are signalled by shifts in register variables (mainly field and tenor), and, hence, shifts in ideational, interpersonal and textual meanings (Martin & Rose, 2007:59). Since the focus of this thesis is mainly on discourse semantics (reviewed in Chapter 2, section 2.1.2), shifts in discourse semantic meanings are the main linguistic evidence for identifying the schematic structures of the BLK articles.
As an example, consider the following extract from the *Guardian* column (Appendix II).

**The Guardian column (Exposition)**

<table>
<thead>
<tr>
<th>Generic Stage</th>
<th>Text (clauses)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Orientation</strong></td>
<td>[2] Osama bin Laden’s death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade. [3] And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered.</td>
</tr>
</tbody>
</table>
| **Thesis**    | [4] But the removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the “war on terror”.

[51] It is time now and moving forward to think about the impact bin Laden had on us and on

Here, though the boundaries of the *Headline* are determined by the newspaper itself (e.g. bold font, separated from the body of the article, etc.), the shift from the *Headline* to the *Orientation* is also signalled by two changes in interpersonal and ideational meanings. The first change is from negative judgment (in *perverted U.S justice*) in the *Headline* to positive appreciation (*removes the single focal point*) and positive affect (*can breathe a sigh of relief*) in the *Orientation*. The second change is from evaluating *bin Laden* (and arguably the *U.S*) in the *Headline* to evaluating bin Laden’s death in the *Orientation*.

Similarly, the shift from the *Orientation* to the *Thesis* is also signalled by a change in discourse semantic patterns. First, there is a logical shift from addition (‘*And*’) in clause [3] to consequence (counter ‘*But*’) in clause [4]. Second, there is an interpersonal shift from positive evaluations of the killing to negative evaluations of the *U.S* (in e.g. *the singular characteristic of the American version of the “war on terror”*). In addition, the overall negative prosody of the text (initiated in the *Headline*) is clearly disrupted by a temporary positive prosody in the *Orientation*, which provides more linguistic evidence for the boundaries between the three stages.

As far as the analysis of APPRAISAL is concerned, two further criteria regarding ATTITUDE and ENGAGEMENT need to be established. The first is related to coding attitudinal invocations. As discussed in Chapter 2 (section 2.1.2.2), an ATTITUDE instance can be invoked by ideational tokens (afford), graduation (flag) or lexical metaphor (provoke). Flagging attitudes can be relatively problematic to identify when
the graduating value is infused (rather than isolated). For instance, consider the following extract from the *NY Times* column:

> When you’re dealing with a **mass** murderer who **bragged** about incinerating thousands of Americans and planned to kill **countless more**…

All three underlined instances are analyzed as ‘flagging’ negative judgments (of bin Laden). However, whereas the graduation values are relatively obvious in *mass* and *countless more*, the graduation in *bragged* is not\(^79\). In this case, a thesaurus can be useful. Using WordNet 3.0 (Fellbaum, 1998), for instance, the graduation infused in ‘brag’ is more evident in the synonyms and dictionary definitions associated with this verb (e.g. *amplify, exaggerate, boastfully, excessive pride*), as shown in Figure 3.6.

\(^{79}\) Especially for a non-native speaker of English.
Provoking attitudes may also be less obvious when the lexical metaphor is more culturally-based. For instance, the metaphorical use of ‘Groundhog Day’ in the following extract from the *NY Times* column is difficult to be read as provoking negative judgment if the discourse analyst is not aware of its cultural connotations.

We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again smart and strong and capable of finding our enemies and striking back at them without getting trapped in multitrillion-dollar *Groundhog Day* occupations. But within days, Naval Seal-gazing shifted to navel-gazing. There was the bad comedy of solipsistic Republicans with wounded egos trying to make it about how right they were and whinging that George W. Bush was due more credit.

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Figure 3.6: Thesaurus information of ‘brag’ in AppAnn. AppAnn has a built-in thesaurus based on WordNet 3.0 (Fellbaum, 1998). See Appendix V for more information.
The negative value in ‘Groundhog Day’ is derived from a movie about “a weatherman who finds himself living the same day over and over again”\(^8\). In this extract, the metaphor provokes negative judgment of the Bush’s administration, which, regardless of the amount of time and resources spent on finding bin Laden, it failed repeatedly over and over again.

The analysis of ‘affording’ attitudes in this thesis is mainly based on a ‘compliant’ reading of the ideational selections. Here, evaluative prosody (discussed in section 2.1.2.2.4 above) and co-text are particularly useful, as Hood (2004) explains

“the co-text and the coarticulation with other resources of APPRAISAL are crucial in determining the interpretation of value. Tokens of attitudinal meaning realised through the grading of experiential entities will pick up the values construed in their prosodic domain.” (p. 100)

As an example, consider the following extract from the *Guardian* column:

In his death, as in his life, we followed his lead when it came to thinking about justice.

In a ‘compliant’ reading of the co-text, the underlined ideational tokens are interpreted as negative judgment of ‘we/us’. This reading is ‘afforded’ by the negative prosody initiated in the paragraph preceding this sentence (see Appendix II), in which we can find a number of inscribed negative judgments targeting ‘we/us’ as in ‘we delved into medieval-style torture…we blindly took aim at a religion’.

The second criterion for the analysis of APPRAISAL is related to identifying the type of ENGAGEMENT coupled with attitudes. Since the analytical work in this thesis involves (automatic) counting coupling frequencies, we need to establish what counts as a coupling of ENGAGEMENT and ATTITUDE. To illustrate this, consider the following extract from the *NY Times* column:

When Angela Merkel, the German chancellor, said “she was glad Bin Laden had been killed”… a colleague called such talk medieval.

The underlined positive affect (‘glad’) is in fact coupled with two ENGAGEMENT values. From the writer’s perspective, the affect instance is ‘attributed’, but from Angela Merkel’s perspective of, the instance is presented monoglossically. For the purposes of

this thesis, the automatic extraction of couplings in AppAnn is programmed to only count the former (attributed affect) and ignore the latter.

A related issue to identifying (and extracting) couplings of ENGAGEMENT and ATTITUDE is concerned with the type of ENGAGEMENT in units below a ranking clause. In this thesis, evaluations in these units are treated (and automatically counted) as couplings of attitudes and monoglossic engagement. For instance, consider the following extracts

1) Killing Evill Doesn’t Make Us Evil. [NY Times column]

2) …will rightly see the death of this most evil of men as a surgical act to cut out a cancer… [Pittsburgh Post-Gazette editorial]

In the first extract, the underlined instance is treated as a coupling of negative judgment (of bin Laden) and monoglossic engagement, because the nominalization can be unpacked to a monoglossic ranking clause e.g. ‘the evil bin Laden is killed’. Similarly, the instance underlined in the second extract is considered as a coupling of negative judgment and monoglossic engagement, since the nominal group ‘this most evil of men’ can be arguably unpacked as ‘bin Laden is the most evil of men’.

As far as the analysis of CONJUNCTION is concerned, two methodological points need to be highlighted here. The first is related to the distinction between internal and external conjunction, and to the criteria for identifying internal conjunction. As pointed out in section 2.1.2.3, external conjunction organizes the field of text, whereas internal conjunction (rhetorically) organizes the structure of text (Martin & Rose, 2003). However, the distinction between external and internal conjunctions “although clear in principle, is in some cases hard to draw” (Martin, 1992a:183), mainly because “most if not all of the conjunctions…realising external relations can be used internally” (Martin, 1983:37).

The criterion to distinguish between internal and external conjunction adopted in this thesis is based on the ‘paraphrase test’ proposed by Martin (1983 & 1992a). The test involves paraphrasing the messages linked by a conjunction “and see whether explicit reference must be made through a verbal process to the act of speaking one of the messages. If so the relation is internal.” (Martin, 1983: 37).

As an example, consider the following extract (from the Gazette editorial):
1) Because the killing took place in Pakistan, the U.S. can hardly argue that the act occurred as part of an international armed conflict…

‘because’ in this extract is interpreted as internal consequence since it can be paraphrased as ‘the reason I am saying the US can hardly argue…is because the killing took place in Pakistan’, or ‘the fact that the killing took place in Pakistan leads me to say/infer/claim that the US can hardly argue that…”. ‘Because’ here contrasts with the one in the following extract (from the same article):

2) The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009, but to no avail because his country is keeping him safe.

Here ‘because’ is interpreted as external since the relation cannot be paraphrased using a verbal process. So, the paraphrase ‘the fact that his country is keeping him safe leads me to say/infer/claim the International Court has been trying to bring to justice…but to no avail” is logically odd81.

The last methodological point to discuss in this section concerns the analysis of implicit conjunction. As Halliday (1994) notes

“One question that arises in the interpretation of a text is what to do about conjunction that is implicit. It often happens, especially with temporal and causal sequences, that the semantic relationship is clearly felt to be present but is unexpressed… It is clear that texture is achieved through conjunctive relations of this kind, and there is no reason not to take account of it” (p. 327).

Moreover, in many cases, “it is hard to see how texts … can be interpreted unless implicitly realised connections are made.” (Martin, 1992a:183). However, as far as implicit internal conjunction is concerned, it is generally possible to treat every movement “from one clause to another in a text as a ‘rhetorical one’, and to make it explicit with an appropriate internal conjunction” (Martin, 1992a:184). This can lead to over-analysis or over-interpretation of the logical relations in text. Consequently, as Martin (1992a) further suggests, it is more practical to limit the analysis of implicit internal conjunction to internal comparison, which is more “crucial to an interpretation...

81 See also Schleppegrell (1996) and Thompson (2013).
of the generic organization of text” (p. 184). As an example, consider the following reticulum diagram (of the *Guardian* column):

Here, the logical relation between the clause complex [17-18] and the preceding clauses can be interpreted explicitly as developing\(^{82}\) internal conjunction (e.g. *Furthermore/Moreover/In addition, it is not surprising*) connecting *Argument 2* back to the *Thesis* stage. However, this relation will not be included in the conjunction analysis in this thesis since the same interpretation is arguably valid for all *Argument* stages in the BLK corpus (wherever an explicit conjunction is absent). In contrast, the comparison internal relation between the clause complexes [17-18] and [19] is made explicit in the reticulum (e.g. *In fact, the order was to kill not capture...*).

### 3.4 Conclusion of Chapter 3

In Chapter 2, fundamental concepts of SFL including hierarchies, genre and social context, evaluative language and conjunction in the discourse semantics have been reviewed. In this chapter, these concepts and discourse systems have been discussed in relation to potential schematic structures, social purposes, evaluative language and conjunction in English editorials and op-eds. Exploring possible schematic structures of this genre is vital to this thesis because it is concerned with how the process of affiliation is achieved as we move from one schematic stage to the next, and how the socio-communicative purpose of a particular stage (e.g. *stating authorial thesis*) influences the potential of linguistic couplings construing affiliative bonds. The review has indicated that the SFL-based WiR model of text types accounts for a wider range of editorial/op-ed purposes (e.g. arguing for a position versus challenging an alternative point of view). Consequently, the WiR model has been adopted in the schematic analysis of the BLK texts as discussed in Chapter 5.

\(^{82}\) Alternatively, the implicit logical relation here can be interpreted as a successive: ordering internal relation (e.g. *Second, it is not surprising*...).
The review of evaluative language in editorials and op-eds has underlined a number of limitations of non-appraisal models (particularly the meta-discourse approach), most significantly their failure to distinguish between evaluations of people vs. evaluations of things vs. evaluations of propositions. The fine-grained systems of APPRAISAL, by contrast, analytically distinguish between these different kinds of evaluation (i.e. judgments towards people, appreciation of things, and engagement in propositions). Consequently, appraisal is adopted as the main framework for the analysis of evaluative language in the BLK corpus.

As far as the main objectives of this thesis are concerned, the review of key appraisal studies on editorials and op-eds has highlighted two major limitations. First, while these studies show expected choices of appraisal associated with the genre of media opinion at higher points of instantiation (e.g. the commentator voice), they do not pay sufficient attention to patterns of co-choices (i.e. couplings) of appraisal and other discourse semantics systems (e.g. ideation and conjunction). Second, these studies are mainly concerned with synoptic views on appraisal patterns, rather than on the dynamic patterns of appraisal (i.e. logogenetic patterns of appraisal couplings, and variations thereof, as ‘text time’ passes from one moment (e.g. generic stage) to the next). As will be seen in Chapter 5, the linguistic analysis in this thesis overcomes these limitations as it comprises a wide range of intra-systemic (e.g. attitude type γ explicitness), inter-systemic (e.g. attitude γ engagement) and inter-metafunctional (e.g. attitude γ ideational entities γ conjunction) couplings. Furthermore, in addition to synoptic patterns, the analysis sheds light on dynamic patterns of these couplings and their logogenetic roles in achieving the social purpose of the text and contributing to the dynamic construction of identities, continuous negotiation of authorial values and alignment/dis-alignment of target readers around accepted/rejected bonds. Finally, as these multisystemic couplings can be highly complex, the thesis also proposes a number of linguistic visualization techniques specifically designed to help appraisal analysts (as well as discourse analysts) to track and interpret coupling patterns both synoptically and dynamically. These visualization techniques will be discussed in the following chapter.
Chapter 4 Linguistic Visualization and AppAnn System

As outlined in Chapter 1, this thesis offers an integrated suite of visualization techniques that are specifically designed to assist SFL discourse analysis, and particularly oriented towards the SFL Appraisal framework. This chapter provides a detailed description of these techniques in terms of design aspects, encoding schemes, and areas of linguistic analysis in which they can be used. In addition, a number of commonly-used linguistic visualizations are critically reviewed. The purpose of this review is twofold. First, it should provide valuable insights into the various ways linguistic data is visualized, and into how the visualization design principles discussed in Chapter 2 are put to practical use. Second, it should highlight limitations of previous Linguistic Information Visualization techniques for visualizing systemic analyses (annotations and features), and, thereby, justify the need for new (or modified) systemic visualizations.

4.1 Linguistic Visualization Techniques
This section critically overviews an emerging subtype of Information Visualization (InfoVis) that is often referred to as Linguistic Information Visualization (LInfoVis) or text visualization. These visualization techniques aim to improve our understanding of how language works in context by presenting abstract linguistic data in a concrete, palpable and ‘perception-friendly’ manner (as discussed in section 2.2.1). The InfoVis literature offers a wide and growing variety of LInfoVis techniques differing vastly in the aspects and features of language they are targeting and the type of users they are addressed to. Several recent projects, conference themes, journal special issues and websites are dedicated to the design, description, discussion and evaluation of such techniques (e.g. EURAC; the EACL 2012 Joint Workshop of LINGVIS & UNCLH, 2012; The 21st European Summer School in Logic, Language and Information ESSLLI, 2009). It is therefore far beyond the practical scope of this section to provide an exhaustive review. Alternatively, my focus will be primarily on the LInfoVis techniques that are relevant to the general objectives of this thesis and from which AppAnn systemic visualization (described in the following section) are derived from or, at least, inspired by.
For the sake of convenience I have loosely classified the techniques discussed in this section into four categories as follows:

- corpus, keyword and relations between key terms visualizations (subsection 4.1.1)
- feature-specific and document comparison visualizations (subsection 4.1.2)
- discourse structure and cohesion visualizations (subsection 4.1.3)
- sentiment visualizations (subsection 4.1.4)

This classification is by no means exhaustive and accurate as it is intended to simplify and organize the discussion of LInfoVis visualization techniques in this section while avoiding undue technicality. Also, most of these techniques, in fact, lend themselves to more than one category depending on the context of their use. For instance, StreamGraphs (discussed in section 2.2.6.1 above) can be included in the corpus and frequency group if the linguistic features are extracted from a large collection of texts (e.g. Zappavigna, 2011a; 2012) or under the discourse visualizations if they are targeting single texts (e.g. O’Donnell, 2012).

### 4.1.1 Corpus, Keyword and Relations Techniques

A particular class of LInfoVis techniques is concerned with how one or more language (phonological, grammatical, semantic etc.) features are used in a large body of texts. Usage here is often determined by ‘mere’ frequency or importance (i.e. high frequency in a group of texts relative to the entire corpus). The StreamGraphs discussed in Chapter 2 are one example of such techniques since it represents frequencies of features extracted from a corpus (e.g. of tweets as in Zappavigna, 2011a or of news articles as in Leskovec, Backstrom & Kleinberg, 2009) over a given period of time. Another type of frequency-based techniques is the word (or tag) cloud. This technique has probably become the most common visualization associated with social media websites since it was first introduced by Stewart Butterfield, a co-founder of the Flickr photo-sharing website (Leung & Pettersson, 2008:16). In its simplest implementation (as in e.g. Chang, 2009; Feinberg, 2009; O’Donnell, 2012; Steinbock, 2009), the design of word cloud is attractively straightforward: words (or user-tagged labels or annotations) are represented randomly or alphabetically in such a way that frequent words are foregrounded by font size, weight, location (centralized or marginalized), colour and/or other visual properties.
For example, Figure 4.1.1.1 shows a word cloud of the previous paragraph. In this cloud visualization, function words (e.g. to, for, by) are ignored and content words are arranged alphabetically. Since the words ‘frequency’ and ‘techniques’ are the most frequent (both occurred three times) in the paragraph, they have relatively the largest font size. Other words such as ‘clouds’, ‘corpus’ and ‘visual’ occurred two times and thus appeared in a smaller font size, while the remaining words (e.g. ‘common’, ‘semantic’) have the smallest size as they all have a frequency of one occurrence. The objective of this cloud is presumably to provide a summary view of the paragraph’s content by highlighting its frequent lexical items.

However, as argued by Watters (2009), highlighting the most frequent words in a text or corpus is not a sufficient representation of its content and the random or alphabetical arrangement of words does not in fact convey meaningful information. Alternatively, some studies (e.g. Culy & Lyding, 2011; Nguyen, Kuiyu & Siu-Cheung, 2011; Murtagh et al., 2010; Watters, 2009) suggest using word ‘keyness’ instead of frequency. Keyness, here, refers to how significant a word is to a text or corpus, and is often calculated using statistical methods (e.g. chi-square test or log-likelihood ratios) that are common in corpus linguistics (for a review of keyness analysis methods see
e.g. Bondi & Scott, 2010; Baron, Rayson & Archer, 2009). By foregrounding keywords instead of frequent words, a word cloud serves, in addition to reflecting the content of a text, a text-categorization function (Nguyen, Kuiyu & Siu-Cheung, 2011:487) (i.e. categorizing texts into distinct groups based on preferred choices of lexical items).

The arrangement of words and their relative locations to each other have also been subject to proposals for improvement. Schrammel, Leitner & Tscheligi (2009) suggest that words in tag clouds can be meaningfully organized according to either their co-occurrence or semantic relations. The first layout places words that tend to co-occur in the corpus as close to each other as possible. Examples of co-occurrence clouds include Brooks & Montanez (2006), Choy & Lui (2006), Hassan-Monteroa & Herrero-Solanaa (2006) and Fujimura et al (2008). The second arrangement places words that are semantically related (e.g. synonyms, antonyms, hyponyms and co-hyponyms) on approximately the same position. This method is adopted in a number of ‘second-generation’ (in Nielsen’s 2007 terms) tag clouds including Laniado, Eynard & Colombetti (2007) and Rinaldi (2012).

As far as the effectiveness of tag clouds is concerned, Halvey & Keane (2007) assert that this technique can improve and support browsing and searching for textual information. Cui et al. (2009), however, argue that static tag clouds have serious limitations when textual data involves a time dimension as they may fail to show, for example, “the content evolution in a stream of text documents” (p. 122). As an alternative, they propose ‘dynamic clouds’, in which the content (i.e. words or tags) changes according to the time period defined by the user. Another modified version of tag cloud visualization is ‘WordBridge’ proposed by Kim et al. (2011). In WordBridge, multiple word clouds are linked together in a graph-based layout according to relations between the texts they represent in a corpus. In other words, clouds that share the same keywords are visually linked by edges (or lines) to foreground similarity, or lack thereof, between texts.

In summary, despite their aesthetic appeal and wide usage, word or tag clouds alone are not sufficient to encode changes in time-dependent textual data. In fact, unless experimentally proven otherwise, even the use of this technique for encoding

\[\text{For more on graph-based visualizations see Battista et al. (1994 & 1999); Chen (2008:65); and Mazza (2009:66)}\]
frequencies, keywords, co-occurrences and other corpus features does not seem to have an advantage over traditional charts or keyword and collocation lists. Nevertheless, for linguists and discourse analysts who are interested in lexical variation and change over time, intra- and inter-corpus relations, statistical distribution of linguistic features, and the study of keywords in context, there are probably more effective alternatives.

The visualization of main topics or themes, key lexical items and their changes over time has been the focus of several visualization studies, most notably Miller et al. (1998); Rohrer, Ebert & Sibert (1998); Wise et al. (1995); Wise (1999); Fry (2000); Seeling et al. (2004); Fortuna, Grobelsnik & Mladenč (2005); Albrecht-Buehler, Watson & Shamma (2004 & 2005); Cui et al. (2011) and Luo et al. (2012). Wise et al. (1995) and Wise (1999), for instance, propose ThemeScape (aka ThemeView) for the visualization of thematic terms (i.e. keywords characterizing documents) in a corpus. ThemeScape uses the topographical landscape metaphor to represent themes and important lexical items as mountains, hills and valleys; the importance of a term is visually encoded in the ‘terrain’ height of the region representing it, as shown in Figure 4.1.1.2 a. Spatial locations of terms in the landscape reflect thematic similarity: the more similar the themes (i.e. co-occurring in the same texts), the closer they are positioned and vice versa. To determine key themes and similarities between terms, ThemeScape deploys various multidimensional scaling techniques similar to those discussed in section 2.3.2.4 above. The use of a landscape metaphor is motivated, as argued by Wise (1999:1224), by the assumption that our perception and interpretation of nature-like objects are far more stable than our perception of abstract visual codes (see also Chalmers, 1993).

ThemeScape here contrasts with other visualizations of main themes and similarities/differences between key lexical items that adopt rather abstract representations. An example par excellence of such visualizations is the BlobbyText developed by Rohrer, Ebert and Sibert (1998). Initially, this technique deploys similar multidimensional scaling methods to extract key lexical items in a given document, and then plots them in a reduced three dimensional space according to their co-occurrences (e.g. collocations). Spatial points representing these items are next connected by ‘implicit surfaces’ as shown in in Figure 4.1.1.2b (i.e. a kind of 3D geometrically smooth shapes; for an accessible introduction to implicit surfaces see
Bloomenthal et al., 1997). The final implicit shape, which represents a single document, is meaningless as compared to ThemeScape’s terrains. However, Rohrer, Ebert and Sibert (1998:123) argue that similar documents (i.e. sharing the same key words) are expected to have analogous implicit shapes and vice versa, which may provide a high-level comparative look at the whole corpus if shapes are presented in the same view.

Figure 4.1.1.2: a) a ThemeScape of a corpus of computer science articles (Plaisant, 2005:56); b) a BlobbyText of an InfoVis article (Rohrer, Ebert & Sibert, 1998:124).
Whereas ThemeScape and BlobbyText offer synoptic and parallel views on the key themes of a corpus, some recent techniques, most notably ‘Valence’ (Fry, 2000a; 2000b) and ‘TextFlow’ (Cui et al., 2011), are more streamlined towards the dynamics of themes: the evolution and unfolding of themes over time. Valence deploys animated networks to encode changes in word frequencies and co-occurrences as a text unfolds (Figure 4.1.1.3). As Fry (2000a:66) explains, unique words are represented by nodes in a three dimensional space where adjacent words (in the text) are connected by curves. As the frequency of a word increases, its node is moved to the outer parts of the visualization so that it can be easily observed, while less frequent words are regularly shifted to the centre. That is, unlike word clouds, Valence’s focus is not on synoptic frequencies, but rather on how relative frequencies of words change as we move from one part of the text to the next. The use of animation, as argued by Fry (2000a:57), is probably the most natural and effective way to encode temporal changes (see also section 2.2.4 above).

TextFlow by Cui et al. (2011), on the other hand, is static in design, but the output view depicts dynamic changes in key themes as well as keyword correlations. This technique extends the dynamicity of StreamGraphs (discussed in section 2.2.6.1 above) so that ‘streams’ show, in addition to emerging topics and themes, when key themes merge and split. According to Cui et al. (2011:2414), two or more themes establish a merging or splitting relationship if the correlation between them, as determined by some multidimensional analysis (see section 2.2.6.2 above)84, increases or decreases. As an example, Figure 4.1.1.4 shows a TextFlow visualization of a small corpus of news articles (about Egyptian 2011 Revolution) arranged in real time. The TextFlow shows five main topic streams (or clusters) A, B, C, D and E, each of which is characterized by a set of keywords. Stream B, for instance, is characterized by the keywords ‘Mubarak’, ‘democracy’ and ‘states’. During January, this stream split into two distinct streams b, which is correlated with Tahrir, and C, correlated with Iran. It should be noted that in addition to those main streams, ‘minor’ streams are included to show how each keyword is important for (or associated with) a topic at any given period of time. For example, the minor stream representing the keyword ‘Mubarak’

84 The exact correlation analysis in this technique is mainly based on multinomial logistic models. For more on the use of these models in data visualization, see Friendly (2000, chap 6).
shows that the word is only significant at January 28, the day dubbed “Friday of Anger”, and January 01, the day named “March of the Millions”.

Figure 4.1.3: a Valence visualization of a German text (adapted from Fry, 2000b; illustration mine)
Whether the dynamics of keywords is encoded in animation or changing streams, themes and keywords in the previous visualization techniques are obtained through a process of ‘decontextualization’, separating a word from its immediate context. Such decontextualization, as argued by corpus linguists and discourse analysts (e.g. Fox & Fox, 2004:100; Biber, Conrad & Reppen, 1998:26), often results in ambiguity, misinterpretation, and lack of information about actual or intended meaning of the keywords. For instance, the keyword ‘states’ characterizing the main stream B in Figure 4.1.1.4 is, to a large extent, ambiguous as it can be referring to a county (e.g. Egypt), condition (e.g. a state of riot) or verbal act. By showing the relevant co-text of a keyword, either through interactivity and manipulation techniques (discussed in section 2.2.4) or alongside the keyword in the visualization view, not only are ambiguity and misinterpretation reduced, but also relations to other key themes can be further revealed.

Consequently, Wattenberg & Viégas (2008) develop a novel visualization technique ‘Word Tree’, which extends traditional concordance and key-word-in-context (KWIC) lines originally proposed by Luhn (1966) and further detailed by Fischer (1966). As shown in Figure 4.1.1.5a, Word Tree, begins by displaying a key term (i.e. a search term chosen by the user) as the main node on the left side of the
visualization view. Next, words that appear to follow the search term in the original
text or corpus are displayed in an adjacent column and connected to the main node by
curved lines. This process continues until the last word in a user-defined window span
is connected. Here, a major difference between Word Tree and traditional concordance
lines is that instead of repeating similar n-grams in the latter, their frequencies are
encoded by font size: the more frequently a word occurs near the search term, the
larger it appears in the visualization view. For instance, the bigram ‘thy god’ in the
Word Tree (Figure 4.1.1.5a) appears larger in size than the bigram ‘your god’ since it
follows the word ‘lord’ more frequently in the King James Bible. Word Tree also
incorporates several interactivity and Details-On-Demand techniques (discussed in
section 2.2.4 above) so that if a word node is clicked, further Word Tree views are
shown and relevant n-gram connections are reproduced.

However, Culy and Lyding (2010) strongly criticize Word Tree for ignoring the
left side co-text of the search term, as “in general a linguist will be interested in both
sides” (p. 99). Alternatively, they propose the ‘Double Tree’ technique in which both
preceding and successive words are included in the visualization. In the same vein,
Riehmann et al. (2012) improves Double Trees by displaying more than one key term
in the same view and using colour hues to encode the absolute frequencies of words
(i.e. their overall frequencies in the text/corpus regardless of the co-text with which
they are associated).
Nonetheless, in certain practical contexts, particularly in corpus-based discourse analysis (e.g. Biber, Connor & Upton, 2007; Upton & Cohen, 2009), it is not only the change in relation between a keyword (or any linguistic feature for that matter) and a text or co-text, but also the relative locations of linguistic features, or ‘logogenetic positions’ so to speak, that contribute to our understanding of the dynamic nature of any linguistic phenomenon. For instance, as argued in Chapter 3 and further explored in the following chapters, the dynamics of persuasion are not only sensitive to the kind of evaluations being negotiated but also to the relative logogenetic location of these evaluations (e.g. in what part of the text they occur, co-occur, couple, decouple and so on). In corpus linguistics, ‘dispersion plots’, simple charts showing the locations of a word or an n-gram in a text, are often used to examine whether a lexical item has particular logogenetic preferences. In Halliday & Matthiessen (2004), similar charts, referred to as ‘text scores’, are developed to track changes in lexicogrammatical selections as the text logogenetically unfolds. Figure 4.1.6 below provides examples of dispersion plots and text scores.
Nevertheless, while dispersion plots and text scores are adequate to show the distributional locations of linguistic features (lexical or grammatical), when more than one feature occurs in the same logogenetic moment, there is an additional need to encode frequencies alongside locations. For instance, since the logogenetic time unit in the text score in Figure 4.1.1.6b is the clause and the maximum frequency of any lexicogrammatical feature (e.g. unmarked Theme or positive Polarity) is ‘one occurrence per clause’, it is obviously sufficient to encode these occurrences using a binary code (i.e. dark gray versus white). However, when a larger logogenetic unit is chosen (e.g. clause complex/sentence, paragraph, generic stage), there is a reasonable possibility that two or more features (e.g. two unmarked Themes) co-occur in the same moment, and thus binary visual codes won’t be sufficient to encode such extra
information. In this case, the concept of *TileBars* proposed by Hearst (1995) can be particularly useful. This corpus visualization technique can be thought of as an extension of the dispersion plots. As shown in Figure 4.1.1.7, TileBars consists of rectangles representing documents in a corpus. The length of a rectangle reflects the relative length of the document it represents. Each rectangle is also divided into invisible rows: a row for each search term set (e.g. in Figure 4.1.1.7, rectangles are divided into two rows corresponding to two sets of search terms). Small squares inside a rectangle encode two pieces of information: the relative location of the search term inside a document and the frequency of this term in the relevant segment (segments in this examples are orthographic paragraphs). Hence, two visual variables are used: ‘position’ to encode the former, and ‘colour value’ to encode the latter (i.e. the more frequent the term in a text segment, the darker the square appears; for more on these visual variables see section 2.2.3 above).

![Figure 4.1.1.7: TileBars example (Hearst, 1995:61): the first rectangle representing document 1256, for instance, shows that both sets of terms (shown at the top textboxes) have moderate frequencies encoded in light gray values. Further, it shows that the first set occurs approximately]({})
at the middle of the document (circled in blue) whereas the second set occurs at the end of the document (circled in red).

Hearst (1995:61) argues that TileBars can actually reveal the ‘distributional’ relationships between term sets, key lexical items and keywords. That is, if two or more term sets persistently have similar frequencies at approximately the same location, this suggests a strong positive association between the sets. Several recent visualization techniques are directly derived or, at least, based upon a similar principle of TileBars, as will be shown in the following sections (see also Don et al., 2007 and Correll, Witmore & Gleicher, 2011).

A relevant class of LInfoVis mainly concerned with explicit encoding of associations between lexical items include VisLink (Collins & Carpendale, 2007; Collins, 2010), FacetAtlas (Cao et al., 2010), Linguistic-Networks (Lux et al., 2011), TopicNets (Gretarsson et al., 2012), *inter alios*. These are basically graph-based (i.e. nodes representing entities/items and edges or connections encoding relations). The kind of relations these techniques target is mainly the degree of (statistical) association between two or more lexical items. How association is determined varies from one technique to another. For instance, Linguistic-Networks uses common collocation measures such as Mutual Information (MI) and t-score tests (for a discussion of these tests in corpus linguistics, see McEnery, 2001). This technique starts with a user-typed search word as the main node in the graph. Next, MI or t-score is performed within a user-defined window so that words in a text or corpus that have relatively high MI or t-score values are included as nodes (or vertices) in the graph. Finally, nodes representing words are connected by edges where the thickness of an edge is directly proportional to the MI/t-score. As an example, Figure 4.1.1.8 shows a Linguistics-Networks graph of the word *Caesar* in the Patrologia Latina corpus. In this corpus, *Caesar* significantly co-occurs with two words: *Julius* and *Augustus*. In the visualization, this is encoded by the relatively thicker edges connecting *Caesar* with these two nouns. Furthermore, the word *Augustus* is strongly associated with another noun *imperator*, as depicted by the considerable thickness of the edge connecting the two words.
To sum up, although the linguistic visualization techniques discussed in this section vary in terms of design and visual mapping, they share the same focus on lexical items as well as relations among them. Relations between lexical items are basically determined by significant co-occurrences; i.e. two or more words (or n-grams) are strongly associated if they tend to co-occur more frequently relative to other words. Here, the techniques differ on how strength of association is calculated and then visually encoded. Methods used for calculating strength of association include ‘mere’ frequencies (e.g. Word Clouds, Valence, TileBars), multidimensional analysis (e.g. ThemeScape, TextFlow, Bubble Text), or collocation measures (e.g. Linguistics-Networks). Furthermore, while some of these techniques are concerned with the overall synoptic relations between keywords and key terms (e.g. ThemeScape, Bubble Text), others are more concerned with changes in association strength over time, which are encoded by either animation (e.g. Dynamic Clouds, Valence), streams (e.g. StreamGraphs, TextFlow) or spatial position (e.g. TileBars). Relations between lexical
items are also represented differently: spatial distance (e.g. ThemeScape, Bubble Text) or graph-based connections (e.g. Linguistic-Networks). In section 4.2, it will be shown that AppAnn visualizations take a further step by considering co-occurrences of systemic features (rather than lexical items) and associations between systemic choices, subcorpora and logogenetic moments.

4.1.2 Feature-Specific and Document Comparison Visualization Techniques
Whereas a considerable number of LInfoVis techniques can be deployed to compare two or more documents (i.e. in terms of key lexical items or linguistic features), there is a set of linguistic visualization techniques specifically designed for document comparison purposes. A ‘linguistic feature’ here can be a word, word n-gram, letter n-gram as in Petrović et al (2009), statistical and numerical properties such as average paragraph length, average word length, significant occurrences (e.g. hapax legomena, hapax dislegomena) as in Abbasi & Chen (2007), phonological properties e.g. pause, duration and speech rate as in Hsueh & Moore (2007), or a systemic feature as will be seen in section 4.2. The main goal of document comparison visualization is to foreground a set of specific features belonging to two or more documents in the same visualization view so that differences and similarities can be observed more easily. Applications of such visualization techniques vary widely and include authorship attribution\(^{85}\) (e.g. Keim & Oelke, 2007), plagiarism detection (e.g. Ribler & Abrams, 2000; Mala & Geetha, 2007), comparative phonology (e.g. Mayer et al, 2010), comparative corpus analysis (e.g. Jankowska, Keselj & Milios, 2012), and comparative discourse analysis (e.g. Chakrabarty et al, 2010), to mention but a few.

Probably the simplest visualization in this category is the DocuCompare technique developed by Labrecque & Stasik (2009). This technique has two versions. The first is an extension of the word clouds discussed in the previous section. As shown in Figure 4.1.2.1a, the first DocuCompare is concerned with frequencies of lexical features in two documents. Lexical items are listed in the middle with bars (for each document) to the left and right. Here, the visual encoding scheme includes size and colour hue (for more on encoding schemes see section 2.2.3). The bar size (or

\(^{85}\) Authorship attribution (aka stylometry) is mainly a computational linguistics and information retrieval problem which is defined as “the task that aims to identify the author of a text, given a model of authorial style based on texts of known authorship” (Luyckx, 2011:iii). See also Joula (2008) and Franking (1988).
length) indicates the frequency of the lexical item in the documents, whereas word hues differentiate between words that occurred in both documents (blue and orange) and those that occurred only in one document (gray). For instance, the lexical expression *I’ll* occurs in both documents, but given the lengths of the corresponding bars, it appears significantly more frequent in document 2. The second variation of DocuCompare (Figure 4.1.2.1b) consists of two word clouds (one cloud for each document) arranged according to frequencies of lexical features. Line segments are then used to connect similar words in both clouds. These connections indirectly encode similarity/difference in two ways. First, the more connections exist, the more similar the documents are (as more connections results from more similar words occurring in both documents). Second, the more crossings of line segments, the less similar the documents (assuming different frequencies indicate lack of similarity). For instance, although the number of connections in Figure 4.1.2.1b is large, the high number of crossings indicates different lexical frequency patterns, and, as a result, less similarity between the two documents.
Figure 4.1.2.1: a) DocuCompare [frequencies], b) DocuCompare [relations] (Labrecque & Stasik, 2009).
Whereas DocuCompare visualization is restricted to two documents, FeatureLens by Shutt et al. (2009) allows for multiple document comparison. As shown in Figure 4.1.2.2, this technique is analogous to the dispersion plots and TileBars (discussed earlier) with more focus on the kinds of features (rather than their distributional locations). Again, features here are lexical items. Each document is given a separate frame box divided into rows corresponding to paragraphs. Lexical items are encoded by coloured rectangles whereas their frequencies of occurrence are encoded by colour values. As an example, the word ‘freedom’ is mapped onto red shades ranging from light (low frequency) to dark (high frequency). FeatureLens also incorporates a number of details-on-demand functionalities (discussed in section 2.2.4 above). For instance, when the user clicks on a rectangle, its corresponding paragraph will be viewed on the right side with the lexical item highlighted.

![FeatureLens visualization](image)

Figure 4.1.2.2: a FeatureLens visualization of a letters to the editor corpus (Shutt et al., 2009:2).

The DiscourseCompare visualization proposed by Chakrabarty et al. (2010) is very similar to DocuCompare and FeatureLens, but instead of targeting lexical items, lexical categories (e.g. *Health, Economy, Education*) are used as the main features. InkBlots proposed by Abassi & Chen (2007), by contrast, extends the set of linguistic
features to include, in addition to lexical items, grammatical categories (e.g. parts of speech, noun phrases, named entities\textsuperscript{86}) as well as some numerical information (e.g. number of misspelled words, punctuation, and average word length). The main purpose of this technique is to detect authorship through the visual comparison of two or more texts in terms of those features. The importance of a feature for a particular author is measured by relative frequencies: the more frequently a feature appears in an author’s corpus, the more important it is for that author. However, whereas frequencies in the previous techniques are treated as numerical and thus encoded by size and colour value, they are treated in InkBlots as categorical and encoded by colour hues (for more on types of data and optimal codes see section 2.2.3 above). Abassi & Chen (2007) divide frequencies into three categories: high (encoded in red), medium (in yellow) and low (in blue). Each author in a given corpus has a frequency profile of the features. Using the actual text as a background of the visualization view, blots (i.e. small spheres) are drawn on top of the text overlay so that the relative locations of features are also shown. The size of a blot reflects the degree of certainty that the feature is produced by X author. That is, large blots indicate that the pre-visualization algorithm is highly certain that the corresponding feature is associated with a given author, and vice versa. An example of this technique is given in Figure 4.1.2.3. Each author is represented by a separate overlay of the same text where blots are distributed according to their location in the text. The blot patterns clearly suggest that the text is written by author A (which in fact it is) for two reasons. First, large red blots mean high frequency and certainty that the features’ source is Author A, compared to small red blots for Author B. Second, the large number of yellow and blue blots in Author B’s side indicates that the features highlighted in the test text are less frequent in Author B’s corpus.

Since frequencies per se are not always adequate to determine associations between linguistic features and texts (as discussed in section 2.2.6.2), some document comparison visualizations adopt a multidimensional analysis. A notable example is Fingerprints developed by Keim & Oelke (2007). One variation of this technique uses

\textsuperscript{86} In computational linguistics and Natural Language Processing, named entity recognition/extraction (NER) typically involves distinguishing proper nouns by assigning labels such as PERSON, ORGANIZATION, LOCATION; see e.g. Sekine & Ranchhod (2009).
Principal Component Analysis (PCA)\(^{87}\) to determine the strength of association between a given part/block of text (e.g. paragraph) and function words (e.g. *for*, *to*, *the*). Colour scales (i.e. linear combinations of hues and values) are used to encode the PCA scores. For example, Figure 4.1.2.4 shows a Fingerprints visualization of 15 literature texts written by American authors (Jack London and Mark Twain). Here, colour scales range from blue to red encoding high and low associations respectively.

For instance, the squares in the first text, the *Call of the Wild*, indicate a very strong association between function words and all the paragraphs, except for the middle ones as indicated by relatively lighter blue squares. The text *A Connecticut Yankee*, by contrast, shows that the middle paragraphs are more associated with function words than the others: a typical pattern of association in almost all Mark Twain’s texts.

Strong opposite (negative) associations can be easily noticed between *The Adventures of Huckleberry Finn* and function words at almost every paragraph, sharply distinguishing this text from other Mark Twain works.

\(^{87}\) As discussed in section 2.2.6.2 above, PCA is analogous to Correspondence Analysis CrA, and it is mainly used with quantitative or continuous variables. For categorical and discrete variables, Abdi & Williams (2010) show that PCA can yield unreliable results and thus CrA should be used instead.
In summary, document comparison visualizations aim to foreground linguistic features for comparative purposes. As in corpus visualizations, features can be as simple as similar words (DocuCompare), relative frequencies (DocuCompare, Discourse Compare and FeatureLens), spatial distribution of lexical items (FeatureLens, InkBlots, and Fingerprints), or multidimensional properties of lexical or grammatical items (InkBlots and Fingerprints). Furthermore, while techniques in this category differ in their visual mapping of linguistic features, they share some similarities. Frequencies are mainly encoded in size (e.g. DocuCompare) and colour values (e.g. Fingerprints), relations are almost always represented by graph-based links or edges (e.g. DocuCompare), and distributional properties of features are typically represented by spatial position. In AppAnn, as will be detailed in section 4.2, the Prosodic Resonance Diagrams are specifically designed to provide comparative views of two or more texts. Nonetheless, whereas the kinds of features in the visualizations discussed in this subsection are mainly lexical items or function words and the text time units are orthographic paragraphs, AppAnn PRD is mainly concerned with
discourse semantics choices (and co-choices) with generic stages as logogenetic moments.

4.1.3 Discourse Structure and Cohesion Visualization Techniques
Some of the visualizations discussed in the previous section (e.g. Fingerprints) can reveal, to some extent, the internal (or local) aspects of the text. Nevertheless, as far as discourse structure is concerned, a specific set of techniques has been developed to visualize a single text at a higher level of granularity and more detailed feature representation. These techniques vary in terms of visual complexity, the kinds of discourse being visualized (e.g. written discourse, spoken conversation, online chat, multimodal discourse etc.) and the linguistic features being targeted (e.g. rhetorical units, rhetorical figures, word classes, repetition, synonymy and hyponymy, multimodal annotations). Given the objectives of this thesis, the focus in this subsection will be primarily on visualization of written discourse, though spoken discourse as well as multimodal discourse has received considerable attention in the LInfoVis research (e.g. Brandes & Corman, 2002; Cowell et al., 2006; Fabo & Novotný, 2012; Pupyrev & Tikhonov, 2010; Tat & Carpendale, 2002; Podlasov, Tan & O’Halloran, 2012; Marissa, O’Halloran & Judd, 2012; O’Halloran et al., 2013; O’Halloran et al., 2014; O’Halloran et al., 2015).

Probably the simplest technique in this category is the JANTOR visualization of rhetorical figures, proposed by Gawryjolek (2009). This technique is very similar in design to the dispersion plots discussed in section 4.1.1 above. However, instead of targeting certain lexical items, JANTOR is more concerned with the relative locations of automatically annotated rhetorical figures. These rhetorical figures include epizeuxis (i.e. continuous repetition of words for emphasis), epistrophe (i.e. ending a clause or sentence with the same word or words), and anaphora (i.e. repetition of words)\(^88\). Figure 4.1.3.1 provides an example of the JANTOR visualization. Here, each type of rhetorical figure is given a colour hue and instances are encoded in strips starting from the left (the beginning of the text) to the right. A strip’s width indicates whether adjacent instances of the same rhetorical figure occur and its location in the view reflects its actual place in the text. Gawryjolek (2009:51) argues that the JANTOR

\(^88\) Gawryjolek’s types of rhetorical figures are based on Corbett & Connors (1999) and McQuarrie & Mick (1996).
visualization can answer questions such as whether i) certain types of rhetorical figures prefer specific locations in the text, ii) the occurrence of certain figures motivates adjacent occurrences of other types and iii) locations of certain figures depend on the genre to which a text belongs.

While repetition is treated as one among many rhetorical figures in the JANTOR system, it is the main cohesion feature in some other discourse visualization techniques. Two notable examples are Poetry Arcs (Byron, 2007) and BibleViz (Harrison, 2007). Both visualizations are based on the ‘arcs’ metaphor (proposed by Wattenberg, 2002) in which data segments (e.g. words, music notes, DNA sequences, program code statements etc.) are arranged horizontally and repetitions are represented by arcs connecting matched segments. In Poetry Arcs, as exemplified in Figure 4.1.3.2a, segments are words arranged as they occur in the poem (i.e. horizontal direction represents text time). Repetitions and rhymed words are connected by arcs. The size of an arc indicates the number of words or phonemes involved in the repetition. For instance, the outermost arc has the greatest size since it connects three repeated words *Hickory, Dickory Dock*. By contrast, horizontal segments in BibleViz are Bible verses in a chronological arrangement. Verses that contain identical references (e.g. identical historical figures) are connected by arcs. As depicted in Figure 4.1.3.2b, the arc colours indicate the distances between connected verses, e.g. blue arcs connecting very close verses, purple arcs connecting less close ones and so forth. As noted by Zappavigna (2011:218), arc-based visualizations “overcome the problem of scalability, meaning that a long text sequence can fit into a single page or screen” with the horizontal axis representing the time dimension. However, as the
number of segments increases, the visualization gets more complex to interpret as in the case of BibleViz (Figure 4.1.3.2b).

Figure 4.1.3.2: a) Poetry Arcs of a children’s poem (Byron, 2007), b) BibleViz of Bible cross references (Harrison, 2007).

Another simple technique in this category is Text-Image proposed by Weber (2007). Here, the linguistic features of interest are word classes rather than lexical items. This technique replaces each word in a text with a colour representing its word class, e.g. verbs are replaced with red blocks, and nouns with black, as illustrated by the encoding scheme in Figure 4.1.3.3a. Figure 4.1.3.3b provides an example of Text-Image visualization applied to a sentence. As can be seen, most word classes are nouns and adjectives (encoded in black and green blocks), characterizing this sentence as
dominantly nominalized. Weber (2007:356) argues that Text-Image “demonstrates to the writer whether his or her text works or not: whether he or she overuses nouns, adjectives, or hidden verbs (nominalization)”. Furthermore, by comparing Text-Images of two or more texts belonging to different genres, certain patterns of word classes associated with each genre can be revealed (ibid, p. 357).89

Some visualization techniques in this category are also concerned with ‘global’ structures of texts. DAViewer developed by Zhao et al. (2012a) is an example par excellence. This technique extends the Rhetorical Structure Theory diagrams through the use of tree visualizations (for a brief discussion of RST, see section 3.2.2 above). Since RST relations are hierarchical (satellites form non-overlapping sub-groupings of text spans, and each sub-group belongs to a ‘parent’ relation), they can be, as Zhao et al. (2012a:2639) explains, represented as a visual tree structure. Two particular representations are incorporated by the DAViewer system: icicle plots and dendrograms, which are commonly used in computational statistics and cluster analysis (see e.g. Kruskal & Landwehr, 1983; McPherson, 2001, chap. 17). Figure 4.1.3.4 provides an example of a DAViewer icicle plot. Here, text segments

89 The objective of Weber’s TextImage, then, is analogous to Taba’s (2002) discussed in section 2.2.6.2 in Chapter 2. However, Weber’s technique does not involve dimensionality reduction.

90 ‘Global structure’ here refers to structures that extend beyond the clause and sentence level to larger parts of text (van Dijk, 1983:24).
(e.g. clause complexes) are represented by gray squares. A black-outlined square indicates a nucleus; whereas satellites’ squares are not outlined. Rhetorical relations between nuclei and satellites are represented by coloured squares (e.g. pink stands for attribution, blue for background, lime for elaboration). For instance, the nucleus segment (2) and the satellite (3) are connected by an elaboration relation as depicted by the green square marked by an asterisk in Figure 4.1.3.4. Segments 2, 3 and 4 are connected by a joint relation as indicated by the red square (marked by two asterisks). Further, the first four segments are linked through an elaboration relation as indicated by the green square (marked by three asterisks), and so forth. Dendrograms are, to a great extent, similar to icicle plots, but instead of using size and area to encode hierarchical relations, it adopts a graph-based representation. In addition, DAViewer incorporates interactivity functionalities such as zooming, overview and details-on-demand (for more on interactivity and manipulation, see section 2.2.4). Zhao et al. (2012:2640) argue that DAViewer can be particularly useful for computational linguists who would like to compare various outputs of RST algorithms.
In summary, the discourse LInfoVis techniques visualize the internal structures of texts by encoding linguistic features (e.g. lexical repetitions, rhetorical figures) as they occur over text time. Text time is typically encoded in position, feature categories in colour hues, and relations (e.g. repetition) in ‘edge’ connections and curves. DAViewer, however, takes a further step by representing discourse hierarchical relations through visual tree structures. As will be shown in section 4.2, text time is a
fundamental visual dimension in most AppAnn techniques, where discourse ‘global structure’ and the dynamics of systemic features are preserved, particularly by AppAnn DARs.

4.1.4 Sentiment Visualization Techniques

As we have seen, linguistic features targeted by the visualization techniques discussed in the previous subsections vary widely, including word classes, misspelled words, average sentence length in words, lexical items, rhetorical figures, rhetorical units, and so on. However, there is a special category of LInfoVis techniques that are particularly concerned with evaluative features, emotional lexis and opinionated language. The techniques under this category are commonly referred to as ‘sentiment visualizations’ as the preprocessing stages (see section 2.2.2) often involves a machine-based sentiment analysis. Sentiment analysis refers to “the computational study of opinion, sentiments and emotions expressed in text” (Ortigosa-Hernández et al., 2012:98). Although the typical goal of most sentiment extraction algorithms, as noted by Hogenboom et al., (2013:69), is to determine the polarity of a text, paragraph, sentence or word (i.e. coarse granularity), fine-grained sentiment analysis (e.g. types of evaluation, sources and targets of opinions) has recently received some attention (Shivashankar, Ravindran & Raghavan, 2009:239). In SFL terminology, ‘granularity’ here is roughly equivalent to ‘delicacy’ and thus a delicate APPRAISAL analysis can be considered as a fine-grained sentiment analysis (Taboada & Grieve, 2004; Read, Hope & Carroll, 2007).

Consequently, sentiment visualization techniques can be further classified into two categories: coarse-grained and fine-grained. The first category is mainly concerned with the negativity/positivity of evaluative phrases (as in e.g. Keim, Bak & Bertini, 2010; Oelke et al., 2008; and Wensel & Sood, 2008). The second category seeks to provide detailed representations of types, sources and/or targets of sentiment expressions (as in e.g. Diaz-Aviles, Orellana-Rodriguez & Nejdl, 2012; Gregory et al., 2006; Haupt, forthcoming; Kamvar & Harris, 2011; Krcadinac et al., 2013; Li & Ren, 2006; Liu, Selker & Lieberman, 2003; O’Donnell, 2012). Polarity in the first group is treated as either categorical (positive/negative/neutral) or quantitative (degrees of positive/negative). Polarity as a quantitative variable is often referred to as ‘sentiment
valence,” which can be defined as a value indicating the intensity of the emotion utterances (Sugandhi, Mulye & Wadhai, 2011:541). Sentiment visualizations vary considerably in the ways in which ‘valence’ is calculated, but generally it is obtained by “counting the frequency of emotion-related words” in a given unit of text (Lansdall-Welfare, Lampos & Cristianini, 2012:1222) as will be discussed later.

One prime example of coarse-grained sentiment visualizations is the VIBES system developed by Wensel & Sood (2008). This system offers three sentiment visualization techniques, namely EmoGraph, EmoMeter and EmoCloud. All three techniques start with extracting important topics (or keywords) as well as emotional lexical items associated with them. Valence values are calculated by counting frequencies of emotional words targeting the topics. EmoGraph is a two dimensional line chart, aiming to represent changes in valence (y-axis) associated with a given topic during a specific period of time (x-axis). As an example, Figure 4.1.4.1a shows an EmoGraph of the topic money in a blog (over the period Feb 2008-Mar 2008). Early in this period, valence values indicate slightly negative emotions towards ‘money’ followed by strongly positive emotions later on. EmoMeter uses the metaphor of a ‘gauge’ to represent overall (synoptic) polarity and valence scores associated with different topics. As shown in Figure 4.1.4.1b, each EmoMeter view consists of three colour-coded areas: positive (green), neutral (yellow) and negative (red). The gauge needle’s angle indicates the overall valence score (i.e. the relative frequency of sentiment lexical items) of a given topic. For instance, while emotions associated with Chris are dominantly positive as indicated by the angle of the gauge in the green area, overall emotions towards summer are shown to be highly negative. The third technique in the VIBES system, EmoCloud, is derived from word/tag clouds discussed earlier in section 4.1.1. As shown in Figure 4.1.4.1c, it is simply a list of sentiment words associated with a given topic, and separated according to their polarity. Wensel & Sood (2008) conduct a survey to investigate the effectiveness of their systems among a small group of bloggers. The survey indicates that VIBES visualizations, especially EmoGraphs, are “helpful in understanding the emotional development of the blogger” (p. 55).

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91 Sentiment polarity and valence of a word, expression, sentence etc. are also referred to collectively as ‘semantic orientation’ (see e.g. Taboada et al., 2011).
Patterns of sentiment polarity over text time are also addressed by a number of sentiment visualization systems. Oelke et al. (2008) is a recent example. Their technique is very analogous to TileBars (section 4.1.1) and FeatureLens (section 4.1.2), but with sentiment features instead of word classes or search terms. As illustrated in Figure 4.1.4.2 below, each text is represented by a group of adjacent squares. Each square stands for a sentence, with the square’s colour indicating the sentence’s overall polarity (i.e. green for positive, red for negative and white for neutral). Colour values (e.g. green shades) indicate valence. Again, valence is obtained by counting frequencies of sentiment words per text unit (here per sentence). For instance, a sentence that contains many positive evaluations such as hope, clear, nice will be represented by a dark green square. A sentence that does not contain any sentiment, or has roughly the same frequencies of positive and negative words, will be represented by a white square and so forth. Oelke et al. (2008:80) emphasize that in addition to the overall synopsis of the sentiment polarity in a text, this technique shows what sentences (or parts of the text) actively contribute to the overall positive or negative mood of the text.
Figure 4.1.4.1: the VIBES system (Wensel & Sood, 2008:53-54), a) EmoGraph of the topic money over time, b) EmoMeters of different topics, c) EmoCloud of sentiment expressions associated with the topic Chris.
Figure 4.1.4.2: Visualization of polarity and valence over text time (Oelke et al., 2008:78).

Fine-grained sentiment visualizations are concerned with encoding, in addition to polarity and valence, the types of emotions in a text (e.g. happiness, sadness, excitement, anger). Here, the preprocessing stages (section 2.2.2) are based upon various models of ‘basic emotions’ (for a brief discussion of such models see Ortony & Turner, 1990). Probably the most common models in sentiment analysis, as noted by Jiang, Ren & Zheng (2008), are Ekman(1982 & 1999), Frijda (1986), Plutchik (1962) and Tomkins (1962 & 1963). The four models are summarized in Table 4.1.4.1 below. It should be mentioned, however, that these four models are psychologically-based and (presumably) proposed as universal across cultures (Mesquita, Frijda & Scherer, 1997:283). Unlike APPRAISAL (section 2.1.2.2), these basic models are, in fact, restricted to internal (or internally-driven) feelings corresponding to the AFFECT subtypes. This considerably limits the range of sentiment types captured and encoded in the majority of fine-grained visualizations.

<table>
<thead>
<tr>
<th>model</th>
<th>number of emotions</th>
<th>emotions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekman</td>
<td>6</td>
<td>anger, disgust, fear, joy, sadness, surprise</td>
</tr>
<tr>
<td>Frijda</td>
<td>6</td>
<td>desire, happiness, interest, surprise, wonder, sorrow</td>
</tr>
<tr>
<td>Plutchik</td>
<td>8</td>
<td>acceptance, anger, anticipation, disgust, joy, fear, sadness, surprise</td>
</tr>
<tr>
<td>Tomkins</td>
<td>9</td>
<td>anger, interest, contempt, disgust, distress, fear, joy, shame, surprise</td>
</tr>
</tbody>
</table>

Table 4.1.4.1: Common Basic Emotions Models in Sentiment Analysis (adapted from Jiang, Ren & Zheng, 2008:2).
A simple sentiment visualization (based on Ekman’s model) is the Affect Color Bar (ACB for short) developed by Liu, Selker & Lieberman (2003). This technique uses colour hues to encode the six types of emotion (e.g. light blue for surprise and red for anger). As shown in Figure 4.1.4.3, each sentiment instance is represented by a rectangle in the bar. Adjacent sentiments of the same type are reflected by wider rectangles. Furthermore, the actual location of an instance is encoded by the location of its corresponding rectangle (from right to left). Details-on-demand and other interactivity manipulations are also included in ACB (e.g. when clicking on a rectangle, the sentence or clause containing the sentiment expression is highlighted in the document view below the bar). According to Liu, Selker & Lieberman (2003:740), the main objective of the ACB visualization is to facilitate document navigation and affectual content exploration. An initial effectiveness experiment shows that ACB facilitates scanning the story documents by an average of 36% (p. 741).

![Figure 4.1.4.3: Example of Affect Colour Bar (adapted from Liu, Selker & Lieberman, 2003:741).](image)

Tag clouds (discussed in section 4.1.1) are also deployed for sentiment visualization. A recent example is Emotional Clouds developed by Diaz-Aviles, Orellana-Rodriguez & Nejdl (2012), and based on Plutchik’s eight basic emotions listed in Table 4.1.4.1 above. Unlike the Affect Color Bar, Emotional Clouds target a whole corpus rather than a single text (i.e. in SFL terms, it is tailored towards higher levels of instantiation). Its algorithm first extracts all sentiment expressions and then groups each expression under one (or more) emotion category. Next, a tag cloud is generated for each category. Each cloud contains most frequent lexical items in the corpus expressing the relevant type of emotion. In Figure 4.1.4.4, for instance, the
eight clouds show the top words expressing joy, trust, fear, surprise etc. in a Spanish Twitter corpus. Here, the top words expressing joy are feliz (happy), especial (special) and amigo (friend), whereas trust is more frequently expressed by importante (important), amigo, verdadero (truly) and so on. Colour values (e.g. dark blue vs. light blue) reflect the emotional intensity expressed by a word. For example, words in dark blue in the sadness cloud (e.g. muerto=dead) indicate ‘grief’ while words in light blue (e.g. caro = expensive) indicate less intense sadness. That is, Emotional Clouds are three dimensional: type encoded in location or position, frequency in size and emotion intensity in colour value.

![Emotional Clouds of a Twitter Spanish corpus](image)

Figure 4.1.4.4: Emotional Clouds of a Twitter Spanish corpus (Diaz-Aviles, Orellana-Rodriguez & Nejdl, 2012:44).

Multidimensionality of sentiment language in texts is also addressed in some other recent techniques. A notable example is the 3D Emotion Space Model (3DESM for short) proposed by Li & Ren (2009). 3DESM is concerned with three sentiment dimensions: type, intensity and density. For sentiment type, 3DESM deploys a hybrid model of those given in Table 4.1.4.1 above, resulting in two positive emotions (love
and joy), two neutral (expect and surprise\textsuperscript{92}) and four negative (hate, anger, sorrow and anxiety). Sentiment density refers to the tendency of sentiment expressions to occur adjacently. The 3DESM view consists of a circle divided into eight parts. Each part represents a type of emotion, as illustrated in Figure 4.1.4.5a. Each instance of sentiment is plotted in the corresponding part. Emotion intensity is then mapped onto the distance from centre: the more intense a sentiment expression, the closer to the centre and vice versa. Density is indicated by a scale of colours ranging from blue (least dense) to red (most dense). The example in Figure 4.1.4.5 shows 3DESM visualizations of six Chinese blog texts. The intense red spots signify highly dense sentiment expressions, the yellow areas less dense and so on. Overall, texts (a) and (b) are considered positive while texts (e) and (f) are negative. This is indicated by the locations of red spots in the 3DESMs: love, joy and expect in (a) and (b), but hate, anger, sorrow and anxiety in (e) and (f). Furthermore, the close distance between red spots and the centre point in (a) indicates more intense emotions of joy and love when compared to (b). Li & Ren (2009) suggest that the application of 3DESM to blogs and social media can assist in tracking “change of the author’s emotion state…” and thus “will be very useful in prevention of crime and/or suicide” (p. 123).

\textsuperscript{92} In APPRAISAL theory, ‘surprise’ is always negative as it is listed under affect: insecurity. Bednarek (e.g. 2006) separates surprise from in/security. She suggests that surprise is an AFFECT subtype which can be positive or negative depending on its co-text. In Li & Ren’s (2009) corpus of 1487 Chinese blogs, surprise appears in both positive and negative contexts, and thus they treated it as neutral.
Each sentiment visualization technique discussed so far has a specific purpose. The VIBES system aims to explore social identity and emotional intelligence, Oelke et al.’s visualization to detect public opinions about a product, the Affect Color Bar to support document navigation and affectual content exploration, Emotional Clouds to analyze public opinion on political and economic issues, and 3DESM to help in preventing crime and suicidal attempts. Nonetheless, a subcategory of sentiment visualization includes techniques that are exclusively designed for linguistic analysis purposes. In addition to the techniques proposed in this thesis (and in Almutairi, 2013),
two works fall into this subcategory: O’Donnell (2012) and Haupt (forthcoming). Both studies are based on the APPRAISAL framework. O’Donnell (2012) offers three APPRAISAL visualization techniques as part of the UAM CorpusTool (for more on this tool, see O’Donnell, 2008). One technique is derived from tag clouds discussed in section 4.1.1 above, while another from stacked and stream graphs discussed in section 2.2.6.1. As shown in Figure 4.1.4.6a, the UAM Appraisal Clouds shows the most frequent types of ATTITUDE in a text or corpus. Here, both TYPE and POLARITY are combined, and frequency is encoded in label size and colour saturation (i.e. the darker the more frequent and vice versa). Appraisal StreamGraph, Figure 4.1.4.6b, consists of three streams showing changes in relative frequencies of the three ATTITUDE main types (affect, judgment and appreciation) as a text unfolds. This visualization also provides some Details-On-Demand capabilities (e.g. when the user clicks on a certain point in the stream, relevant annotations of attitudes appear below the visualization view). The third technique described in O’Donnell (2012) is Appraisal Crosshair. The technique consists of a simple 2D graph where one axis differentiates between ethical (judgment) and aesthetic (appreciation) attitudes, and the other axis differentiates between personal (affect) and impersonal (judgment and appreciation) evaluations. Sources of ATTITUDE (or appraisers) are represented by uniquely-coloured dots on the graph. The location of a dot is determined by frequencies of attitudes produced by the corresponding appraiser. For instance, the Appraisal Crosshair in Figure 4.1.4.6c contains four dots corresponding to four appraisers. The location of the blue dot indicates that Appraiser A tends to evaluate ‘ethically’ through impersonal judgments. By contrast, the location of the green dot indicates that Appraiser B uses a balanced mix of attitudes (i.e. almost equal frequencies of affect, judgment and appreciation). As O’Donnell (2012:116) argues, the UAM APPRAISAL visualizations can assist in the exploration of rhetorical voices and identity construction in a text/corpus.

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93 This technique was originally proposed by Peter White (O’Donnell, 2012:127).
Figure 4.1.4.6: UAM CorpusTool Visualizations of Appraisal: a) Appraisal Cloud, b) Appraisal Stream, c) Appraisal Crosshair (O’Donnell, 2012:126-127).
In closing, sentiment visualizations are generally classified into two main categories: coarse-grained and fine-grained, depending on the extent of sentiment analysis performed in the preprocessing stages. Coarse-grained visualizations are basically concerned with evaluation polarity and valence (e.g. the VIBES system). Fine-grained visualizations target, in addition to polarity and valence, other sentiment features such as type of emotion (e.g. Color Affect Bar), sources of evaluations (e.g. Appraisal Crosshair) and so on. Furthermore, some sentiment visualizations include text time as a major visual dimension (e.g. Affect Color Bar, Appraisal Streams) while some other are more concerned with overall synoptic representations (e.g. 3DSEM and Appraisal Crosshair). Sentiment visualizations are particularly relevant to this thesis as it is concerned with the visualization of APPRAISAL both from a synoptic perspective (i.e. corpus and subcorpus patterns) and a dynamic perspective (logogenetic interactions of features over text time). As will be seen in section 4.2, a number of AppAnn visualizations are derived from, or mostly inspired by, the techniques discussed in this section.

4.1.5 Concluding Remarks and Links to Current Study

In the previous sections, LInfoVis techniques of four categories have been discussed in terms of their general and specific purposes, the kinds of linguistic patterns they aim to visualize, and the ways in which linguistic features are visually encoded. In this subsection, I will argue that these techniques are not compatible with the criteria for an effective (systemic) discourse visualization system, set out earlier in the first chapter (and, hence, not compatible with the objectives of this thesis without modification). In other words, the need (and justification) for creating new systemic LInfoVis visualization techniques or appropriately modifying (and extending) existing ones will be specifically addressed.

Holding these criteria in mind, the first limitation imposed by most of the techniques discussed in the previous sections is their exclusive focus on lexical items and lexical relations (e.g. repetition). In SFL, lexis is defined as the most delicate choices in a lexicogrammar system (e.g. Halliday, 1991b; Hasan, 1987). Furthermore, lexical items are the basic realizations of most discourse semantics choices (Martin & Rose, 2007:44; Martin & White, 2005:46). Nonetheless, it is often necessary (and more
practical) in the context of discourse analysis to consider other levels of delicacy, as discussed in Chapter 3 above. Moreover, the freedom to move from low delicacy to high and vice versa is particularly essential when investigating ‘generalizable’ vs. ‘non-generalizable’ systemic features across a corpus of similar texts (Matthiessen, 2009:13). A probable reason of this limitation is that these techniques depend mainly, in the preprocessing stages, on automatic extraction of linguistic features. Automatic extraction algorithms are still restricted to graphology and lexis (i.e. the expression stratum of language) since their accuracy suffers greatly at higher levels of language (Matthiessen, 2006:109). In fact, even systemic-based visualizations where the coding process is manual such as O’Donnell (2012), though having the potential to be more flexible, have fixed levels of delicacy (i.e. only the three basic attitudes)94.

A second limitation to the use of the previous visualizations in systemic discourse analysis (of the kind espoused in this thesis) is the lack of flexibility representing text time. We have seen that a number of LInfoVis techniques include text time as a main variable. Time units in these techniques vary considerably: relative positions of occurrence (in e.g. Affect Color Bar and JANTOR), words (Valence and Text-Images), clauses (the UAM Appraisal Streams), orthographic paragraphs (TileBars, DiscourseCompare, FeatureLens and Fingerprints), and clause complexes (RST icicles and dendrograms). Nonetheless, the choice of text time units in these techniques is predetermined and fixed. In other words, it is not possible to zoom in/out text time to examine how linguistic features (and relations between them) behave with respect to different logogenetic moments. For instance, as will be further shown in the next chapter, the coupling strength of two discourse semantics choices (e.g. ATTITUDE and ENGAGEMENT) can be significantly high when the chosen logogenetic moment is generic stage, but very low when the chosen moment is paragraph. Moreover, flexible time frames allow for ‘reliable’ generalizations across texts, without the need for normalization95 (as in UAM StreamGraphs). For example, if heteroglossic propositions persistently appear in a specific generic stage, say the Anti-Thesis, of a group of texts, it is very possible (and justifiable) to conclude that the group of texts show a strong association between heteroglossic engagement and Anti-

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94 Fixed delicacy in the Appraisal Crosshair may be an exception. The low level of ATTITUDE delicacy is chosen carefully to reflect the two dimensions (subjective vs. objective and aesthetic vs. ethical) as O’Donnell (p. c.) explains.

95 Normalization here refers to the process of “adjusting raw frequency counts from texts of different lengths so that they can be compared accurately” (Sotillo & Wang-Gempp, 2004:119).
Thesis. This kind of generalization would not be possible if the logogenetic moment is paragraph as texts often vary in the number of paragraphs.

Finally, the sentiment visualizations also suffer two limitations. First, the sentiment features are either restricted to polarity and valence (e.g. the VIBES techniques) or basic emotions (e.g. 3DESM). That is, the richness of systemic-based models such as appraisal cannot be adequately captured by these techniques. Again, automatic sentiment algorithms in the preprocessing stages directly contribute to this limitation since accurate, highly fine-grained, machine-based sentiment analysis is still far-fetched (Taboada & Grieve, 2004; Wang, 2009). Second, the sentiment models on which these visualizations are based do not differentiate, on the one hand, between evaluations that target human entities (judgment) and those targeting non-human entities (appreciation), and, on the other hand, between evaluations of entities (ATTITUDE) and those of propositions/proposals (ENGAGEMENT). In addition, the notion of ‘valence’ which refers to attitudinal intensity (Sugandhi, Mulye & Wadhai, 2011:541) is, to a great extent, vague as it is determined by both frequencies of certain sentiment instances and what is known in sentiment analysis as ‘contextual valence shifters’ (these include hedges, intensifiers and modals as detailed in Polanyi & Zaenen, 2004). In appraisal, these are treated as separate systems, as polarity is a subsystem of ATTITUDE; intensifiers (and hedges) are part of GRADUATION; and modals are realizations of ENGAGEMENT.

Table 4.1.5.1 provides a summary of the limitations discussed above and shows aspects of the criteria that are satisfied (or not) by the visualization techniques explored in the previous sections. As can be observed from this table, most of the visualization systems do not fully comply with these criteria. Consequently, the AppAnn system is developed to overcome these limitations, and to provide more effective visualizations for SFL-based discourse semantics analysis.
Table 4.1.5.1: Summary of Thesis’ Criteria and Previous Techniques.

Notes: 1) Criteria are outlined in Chapter 1; 2) see section 2.2.4; 3) an SFL example of simultaneous multiple relation is a coupling of engagement and attitude; 4) see section 2.2.6.2; 5) see section 2.2.4.

In closing, it should be emphasized that the review presented in this section provides useful insights into the practical application of the heuristics and encoding guidelines discussed in section 2.2. First of all, the dominant use of colour hues to encode linguistic categorical features (e.g. polarity, lexical categories, word classes, affect types) is highly evident in almost all the techniques, especially in sentiment visualizations. Needless to say that the use of colours as emotional codes is primarily motivated by psychologically (or culturally-based) links between colours and emotions, e.g. possible associations between blue-green hues and fear, or red and disgust/sadness/anger (see e.g. Gao et al, 2007; Kaya & Epps, 2004; Mohammad, 2011; Strapparava & Ozbal, 2010). Second, relative frequencies of features or relations are regularly encoded in size of either connection lines, bars or other shapes. Third, it seems that graph-based connection lines are very common codes to represent relations
between linguistic features (e.g. repetition or co-occurrence). Finally, for dynamic representations of features involving ‘change over time’, it also seems that animation and chart-based codes are more preferred by a number of visualization techniques. These ‘visual encoding’ preferences guide the design of AppAnn visualizations, as will be detailed in the following section.

### 4.2 AppAnn Systemic Visualization Techniques

#### 4.2.1 AppAnn System: Introduction

AppAnn (short for Appraisal Annotator) is a Microsoft Windows-based software system originally designed for the visualization of APPRAISAL, particularly ATTITUDE subsystems. Later developments include more systems of appraisal and others in discourse semantics. AppAnn is also equipped with a number of tools to facilitate corpus annotation, text coding and linguistic data management. These tools are intended to complement AppAnn visualizations in two ways. First, they provide a stand-alone, integrated discourse analysis environment that is totally independent of external coding tools. Second, they are specifically tailored towards appraisal, genre and discourse semantics analyses that are outlined in the previous chapters. The limited space of this subsection, however, does not permit a thorough discussion of these tools (for a more detailed description see Appendix V). The focus in this introductory subsection will thus be mainly on functionalities that are particularly unique to AppAnn and directly relevant to the visualization techniques detailed in the following sections.

The major coding aspect in AppAnn is concerned with APPRAISAL systems. Each system has a fixed, built-in system network96 with levels of delicacy consistent with the main objectives of this thesis. Figure 4.2.1.1a shows an example of the built-in ATTITUDE system networks. In this example, colours are used to highlight already selected features (e.g. propriety) associated with the text segment *perverted*. The system network also shows a simple application of the Focus+Context concept discussed earlier in section 2.2.4. That is, as the user/analyst moves towards more delicate choices, the less delicate ones will be marginalized (zoomed out) but not hidden. This is particularly useful in case of low screen resolutions where the system

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96 Importing systemic networks from other systemic coding systems (such as the UAM Corpus Tool) is a work on progress.
network extends beyond the screen area. In addition, there are two textboxes at the bottom of the network where the source/appraiser and target/appraised entities can be specified.

To facilitate the coding process further, the users do not have to manually type in sources/targets of ATTITUDE, as they can directly select them from the Ideational Entities List (IEL) (see Appendix V, section V.2.7, for a video tutorial). This list is generated automatically by AppAnn and contains all ideational entities in the sentence where the ATTITUDE instance occurs (Figure 4.2.1.1b). For the construction of an IEL, AppAnn depends on the Stanford Lexicalized Parser (Klein & Manning, 2003) and the Stanford Named Entity Recognizer (Finkel, Grenager & Manning, 2005) to extract common and proper nouns. In case the desired source/target does not appear in this list (due to e.g. parsing errors, or the target of an instance is a whole clause rather than a single entity), the user is able to manually type it in (and AppAnn will store it in IEL automatically).

The purpose of this list is twofold. First, it may save time and effort expended in typing in the same appraiser/appraised over and over again. Second, it ties and unifies references to ideational entities across the text. That is, if a source/target entity appears in several sentences or clauses in the text, it would appear as one entity in the IEL lists, and, thereby, AppAnn would be aware that it is the same entity associated with multiple ATTITUDE instances. This is very crucial in many preprocessing stages of AppAnn visualizations that involve determining (and calculating) couplings of attitudes and ideational entities. The main issue that may arise here is if the same source/target is referred to, in other sentences, by a pronoun. In this case, the Pronoun Resolution Tool (PRT) in AppAnn can be particularly useful (see Appendix V, section V.2.4). As shown in Figure 4.2.1.2, a PRT is a simple network map of relations between repeated nouns and pronouns. This map is also constructed automatically by AppAnn using the Stanford Co-reference Resolution tool (Lee et al., 2011 & 2013). Again, this map is flexible as it allows the user to add, modify or remove co-references97. The main purpose of the PRT maps is to automatically update and correct IEL lists as well as the Grouping Entities tool discussed later. For instance, if the user selects an ATTITUDE segment such as evil in the sentence He is evil, the ideational

97 Ram & Devi (2012:285) defines co-reference resolution as “the task of identifying which noun phrases (NPs) or mentions refer to the same real-world entity”.


entity (e.g. Osama bin Laden) to which the pronoun refers will appear in the sentence’s IEL instead of he. Further pronouns and nouns (e.g. bin Laden, Osama, Al-Qaeda’s leader, the Saudi dissident) that refer to the same entity will be represented by the same nominal group (e.g. Osama bin Laden) in IELs as well.

Figure 4.2.1: a) ATTITUDE system network; b) Ideational Entity List
While IELs tie ideational identities within a text, the Grouping Entities Tool (GET) unifies co-references across a corpus (see Appendix V, section V.2.10). As exemplified in Figure 4.2.1.3a, the GET window lists all ideational entities in the whole corpus or a user-defined group of texts. These entities are also extracted automatically using the external tools mentioned earlier. Entities that are typed in manually by the user (e.g. in IELs) are also included in this list. New classes of entities (Figure 4.2.1.3d) can be created and given names. For instance, in Figure 4.2.1.3b and Figure 4.2.1.3c two classes are created; the first is labelled (for simplicity) US government and the second semiotic entities. The first class can have source/target entities such as the US, the US government, the White House, the US troops, the US officials etc., while the second class can include entities such as my argument, the idea, the response and so forth. Unifying co-references by the AppAnn GET is very important if we are to examine association patterns between appraisal and ideational entities in a group of similar texts. For instance, in Chapter 5, we will see that the U.S government is referred to in different ways in the BLK corpus (e.g. ‘the U.S’, ‘the
United States’, ‘the White House’, ‘the U.S government’). In order to examine and visualize how the U.S is evaluated in the whole BLK corpus, AppAnn, through the GET tool, should be aware that these entities refer to the same evaluation target.
Figure 4.2.1.3: an example of an AppAnn GET: a) all entities in a corpus; b) and c) user-created classes of entities; d) list of user-created classes.
Similarly, the ENGAGEMENT system network in AppAnn has options to specify the sources and targets (see Appendix V, section V.2.8). However, since the target of an ENGAGEMENT instance is often a proposition manifested in a clause (or a series of clauses), the user has the ability to define the exact range or boundaries of this proposition, as exemplified in Figure 4.2.1.4. Defining the proposition of an ENGAGEMENT instance is particularly crucial in examining intra-couplings of APPRAISAL. Any instance of ATTITUDE occurring within the boundaries of an ENGAGEMENT proposition is treated in this thesis as an instance of coupling between the two systems, as explained in Zappavigna (2007) and Zappavigna, Dwyer & Martin (2008) (see also section 2.1.2.2). By defining a range of an ENGAGEMENT instance, AppAnn will be able to extract such couplings.

Figure 4.2.1.4: Defining the target of an ENGAGEMENT instance in AppAnn.
Another relevant aspect of AppAnn coding is concerned with CONJUNCTION systems (see Appendix V, section V.2.5). As discussed in section 2.1.2.3 above, a CONJUNCTION instance always involves a relation between two or more clauses. For an effective coding of conjunctive relations in a text, AppAnn offers the Conjunction Analysis Tool (CAT). This tool starts by listing all the clauses in the text. These clauses are manually defined by another tool98 (see Appendix V, section V.2.3). Linking two clauses by a conjunction can be simply performed by clicking on one clause and then the other. A relevant system network will appear, from which the kind of conjunction can be specified as shown in Figure 4.2.1.5.

The last coding aspect to discuss in this section is concerned with the transformation of annotated discourse semantics data into visualization. Here, AppAnn offers Systemic Query Expressions (SQE). An SQE can be thought of as a user-controlled interface between the annotated data and AppAnn visualizations, and through which the user controls the kind of discourse features to visualize and the visual codes of the visualization such as colours (see Appendix V, section V.3.1). The main purpose of SQEs is to guarantee flexible visualizations that can be tailored to special analytical needs. As argued in Chapter 1 and further reiterated in section 4.2.5 above, as far as the objectives of this thesis are concerned, an effective systemic-based visualization technique should be flexible enough to allow for different levels of delicacy and multiple units of text time when needed.

This cannot be achieved if the visualization technique is totally fixed at one level of delicacy or one unit of text time (e.g. sentences). An SQE is a logical query expression whose elements are systemic features. As shown in Figure 4.2.1.6, the SQE window is divided into seven sections: one for each discourse semantics system. Appendix VI provides further explanations of how SQEs can be formulated correctly. In this section, however, a brief example should be sufficient to demonstrate how SQEs work. As shown in Figure 4.2.1.6a, the ‘feature’ sub-tab allows for basic ATTITUDE extraction. For instance, if we would like to extract all negative affect instances in a text/corpus, an expression like [“affect” & “negative”] can be typed in under this tab. Furthermore, since AppAnn is a multi-layer annotation tool, we can also limit the query extraction scope by specifying on which layer(s) the SQE is applied. In

98 Although the clause defining tool is fully manual at this moment, future work may include automatic extraction of clauses. Preliminary attempts such as Honnibal (2005) and Hawker, Anthony & Patrick (2005) in this area show encouraging accuracies.
Figure 4.2.1.6b, the SQE is limited to the first layer *Attitude*[BUILT-IN] (a layer added for inscribed attitudes). In addition, the SQE can be tested ahead of its actual use in AppAnn visualizations, as shown in Figure 4.2.1.6c. This simple SQE can be modified to extract certain coupling instances. For example, under the sub-tab ‘target’, we can limit the extraction process to negative affects whose trigger is bin Laden as shown in Figure 4.2.1.7. The ‘engagement’ sub-tab allows us to further limit the extraction process to instances that occurs within a specific type of engagement (i.e. couplings of attitudes, ideation and engagement).

SQEs are vital elements of the pre-processing stages in AppAnn visualization techniques as they guide what kind of discourse semantic features should (and should not) be processed and then visually mapped. The following sections are dedicated to a discussion of six\(^99\) AppAnn visualizations in terms of their design, encoding schemes and potential applications. This discussion should set the stage for the actual application of these techniques in the following chapter.

\(^99\) Five other AppAnn visualization techniques are excluded from this thesis due to space concerns (some of them are discussed in my Text & Talk paper [Almutairi, 2013]). These techniques are briefly introduced in Appendix V.
Figure 4.2.1.5: AppAnn Conjunction Analysis Tool

Figure 4.2.1.6: a simple SQE for extracting negative affect instances.
Figure 4.2.1.7: a complex SQE for extracting coupling instances of negative attitude and ideation.

### 4.2.2 Correspondence Analysis (CrA) and Kinds of Contingency Tables in AppAnn

As discussed in section 2.2.6.2 above, CrA is a powerful statistical technique for the analysis of linguistic categorical data. The adoption of CrA in AppAnn is motivated by three facts. First, the discourse semantics features with which this thesis is concerned are mainly categorical (e.g. positive/negative, affect/judgment/appreciation, monoglossic/heteroglossic, bin Laden/U.S etc.). Second, CrA does not only explain associations, similarities and correlations between two variables (e.g. associations between ATTITUDE and ENGAGEMENT choices) but also between categories within variables (e.g. associations between subtypes of ATTITUDE). Third, CrA provides not only numerical but also graphical outputs, which makes it perfectly aligned with the context of this work. In AppAnn, CrA is used both as a visualization per se using the CrossTab tool (see Appendix V, section V.3.10), and as a pre-processing stage of some other techniques (see section 4.2.6). In both uses, CrA is performed on three kinds of contingency tables: Corpus- DSC (short for Discourse Semantics Categories), Text Time-DSC, and DSC-DSC.

A Corpus-DSC contingency table is one where categories of one variable are corpora, sub-corpora or texts within a corpus and categories of the other variable are
discourse semantics features. An example of Corpus-DSC contingency table is given in Figure 4.2.2.1a. In this table, the first (row) variable consists of two subcorpora of the BLK corpus: FOR (i.e. articles arguing for killing bin Laden) and AGAINST (i.e. articles arguing against the killing). The second (column) variable comprises six discourse semantics categories: positive affect, negative affect, positive judgement, negative judgement, positive appreciation and negative appreciation. A cell count, then, is simply the total number of instances occurring in a subcorpus (e.g. 6 positive affect instances occurred in the FOR subcorpus). As discussed in section 2.2.6.2, our main interest with a contingency table is to examine whether or not there is an association (or dependency) between the two variables (here whether the occurrences of couplings depend on the subcorpus or they occur randomly). The chi-square test (Figure 4.2.2.1b) shows that the use of each type of ATTITUDE in the BLK corpus is in fact strongly dependent on whether the text is FOR or AGAINST (with a p-value far less than the confidence value 0.05\(^{100}\)). The strong (global) association between the two variables thereby encourages us to further examine individual associations (i.e. what subtypes of ATTITUDE are associated with what subcorpus). This is where CrA comes into the picture (for a detailed discussion of AppAnn CrA, see Appendix VI).

Figure 4.2.2.2 provides an AppAnn CrA plot of the table in Figure 4.2.2.1a. The plot shows, for instance, that positive affect is strongly associated with the AGAINST articles. This is indicated by the relatively small distance between the sphere representing AGAINST and the cube representing positive affect. Negative affect, by contrast, is more associated with the FOR articles as suggested by the relatively small distance between the corresponding sphere and cube. This association can be confirmed from the cell counts\(^{101}\) (i.e. 6 positive affect instances in FOR compared to 15 in AGAINST; and 16 negative affect instances in FOR compared to 6 instances in AGAINST). The overall correlation\(^{102}\) (or strength of associations) is 0.4. This roughly means that e.g. positive affect is 40% more associated with the AGAINST subcorpus than the FOR.

\(^{100}\) Here, the significance value estimates the probability that the subtypes of attitude occur randomly in the BLK corpus. A widely-accepted p-value in linguistics is 0.05 (Gries, 2009; Rasinger, 2013). This means when our p-value is less than 0.05, the null hypothesis (i.e. the hypothesis that the use of attitudes is totally independent of subcorpus) can be confidently rejected.

\(^{101}\) It should be mentioned here that although associations in small tables can be derived directly from cell counts without using CrA visualizations, in case of large tables the process can be very strenuous and error-prone. In this thesis, Corpus-DSC tables that involve ideational entities are frequently used to obtain the findings in Chapter 5. These tables are relatively large with hundreds of cells.

\(^{102}\) CrA correlation coefficient is obtained by summing the trace scores of the square-root eigenvalues matrix (as detailed in Appendix VI). Bendixen (2003:7) asserts that a correlation coefficient larger than 0.2 indicates very strong dependency/association.
Figure 4.2.2.1: Simple Example of a Corpus-DSC Table.

<table>
<thead>
<tr>
<th>Logo moments</th>
<th>Varsub</th>
<th>positive affect</th>
<th>negative affect</th>
<th>positive judgment</th>
<th>negative judgment</th>
<th>positive appreciation</th>
<th>negative appreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR</td>
<td>15</td>
<td>6</td>
<td>16</td>
<td>5</td>
<td>42</td>
<td>36</td>
<td>20</td>
</tr>
<tr>
<td>AGAINST</td>
<td>16</td>
<td>16</td>
<td>6</td>
<td>27</td>
<td>30</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

\[ \chi^2 \]

- **Sample size:** 231
- **d.o.f.:** 5
- **Chi-squared test:** 26.978319494011
  - Null hypothesis (p-value): 5.75966726664974E-5
- **Woolf's G test:** 28.7990130112864
  - Null hypothesis (p-value): 2.54383142853702E-5

- Chi-squared result:
  - H0 is rejected at the significance level of p<0.05
- Woolf's G result:
  - H0 is rejected at the significance level of p<0.05
The second type of systemic contingency table in this thesis uses logogenetic moments instead of subcorpora. These (Text Time-DSC) tables are particularly useful when examining associations between discourse semantics choices and text time within a text. A prime example of this kind of tables is Rothery & Stenglin’s (2000) which is discussed in section 2.2.6.1 and provided in Table 4.2.2.1 below. Here, the row categories are three generic stages (Text Evaluation, Text Synopsis and Reaffirmation of Text Evaluation) and the column categories are four APPRAISAL features (amplification, appreciation, judgment and affect). The AppAnn CrA plot of this table is given in Figure 4.2.2.3. The distances between APPRAISAL cubes and generic stages’ spheres suggest that judgment is strongly associated with the stage Text Synopsis, whereas appreciation is associated with the Reaffirmation of Text Evaluation. The Text Evaluation stage, by contrast, is not as clearly associated with a certain APPRAISAL feature. In AppAnn, Text Time-DSC tables are the basis of two
visualization techniques: Multiple StreamGraphs (section 4.2.3) and Prosodic Resonance Diagrams (section 4.2.4).

Table 4.2.2.1: a contingency table of appraisal choices in story’s generic stages (Rothery & Stenglin, 2000: 241).
Figure 4.2.2.3: a 2-D CrA plot of the Text Time-DSC table in Table 4.2.2.1.

The last type of contingency tables in AppAnn is the DSC-DSC table. In this type, both variables are discourse semantics features (of the same or different systems or subsystems). Figure 4.2.2.2 provides an example of this type\textsuperscript{103}. Here, the column categories are six ATTITUDE features (from combining TYPE and POLARITY), and the row categories are five ENGAGEMENT choices (of medium delicacy). The cell counts are then raw frequencies of coupling features of the two systems (e.g. the first cell shows 7 instances of coupling positive affect \textsuperscript{1} monoglossic engagement). Here, the AppAnn CrA in Figure 4.2.2.4 can help us determine whether a specific type of ATTITUDE is associated with (or favoured by) a specific type of ENGAGEMENT (i.e.

\textsuperscript{103} Note that this table contains zero (or empty) cells, which means chi-square is inapplicable. One major advantage of CrA is its ability “to handle sparse tables with lots of zeros” when compared to other statistical methods such as chi-square and log-ratio analysis (Greenacre, 2007a:1 and 2007b: 1)
whether there are statistically significant couplings in the texts). The correlation coefficient of ≈0.3 indicates a relatively strong (overall) correlation between ATTITUDE and ENGAGEMENT. Furthermore, whereas the actual CrA reduces the dimensions into four (i.e. total engagement choices minus one), around 78% of the associations in Figure 4.2.2.2 can be explained by the first factor (horizontal blue axis) and 14% can be explained by the second factor (red vertical axis). In other words, the two dimensional CrA plot in Figure 4.2.2.4 in fact represents 92% of the actual associations. From the distances between ATTITUDE spheres and ENGAGEMENT cubes, it can be seen that only five couplings are highly significant, namely positive judgment γ monoglossic, negative judgment γ attribute, positive judgment γ disclaim, negative appreciation γ entertain, and positive appreciation γ entertain. Considering the first factor alone, we can also argue that the three couplings positive affect γ monoglossia, negative affect γ disclaim and negative judgment γ proclaim are also statistically significant.

<table>
<thead>
<tr>
<th>Logo-moments/Variable</th>
<th>monoglos</th>
<th>disclaim</th>
<th>proclaim</th>
<th>entertain</th>
<th>attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>+aff</td>
<td>7</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>-aff</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>+jud</td>
<td>19</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>-jud</td>
<td>24</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>+app</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>-app</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 4.2.2.2: Example of a DSC-DSC table cross-classifying ATTITUDE and ENGAGEMENT in three BLK texts.

104 As discussed in section 2.2.6.2, the objective of CrA techniques is to reduce data dimensionality. Here, the CrA reduces the table’s dimensionality into four factors. Though it is possible in AppAnn to plot the four dimensions, the resulting visualization is very difficult to interpret. Instead, only the first two dimensions (which explain 92% of the table associations) are plotted. For more on this, see Appendix VI.
4.2.3 Multiple StreamGraphs
StreamGraphs in AppAnn are derived from those discussed in section 2.2.6.1, with three modifications. First, the physical time dimension (e.g. minutes, hours, months etc.) is replaced with (logogenetic) text time (as in the UAM Appraisal Streams). Second, lexical features are replaced with discourse semantics ones. That is, the focus is shifted from lexical realisations of choices to the systemic choices themselves. In this thesis, though the main logogenetic units are generic stages and clauses, the user of AppAnn can define specific time units through the SQEs (discussed in section 4.2.1). Third, AppAnn allows for multiple StreamGraphs in a single view. (see Appendix V, section V.3.5, for more on this visualization)

Since the main design aspects of StreamGraphs are described in section 2.2.6.2, the focus in this section is on setting this technique into the context of discourse
semantics analysis through some examples. In its simplest implementation, AppAnn StreamGraphs is a stacked (or area) graph, providing two kinds of comparative views of frequencies of discourse features over text time. The first kind allows us to compare and contrast the frequency of a feature with respect to other features within the same moment. The second allows us to compare and contrast the frequency of a feature with respect to itself in other moments. As a brief example, Figure 4.2.3.1a shows a StreamGraph of inscribed attitudes over text time (represented by paragraphs), whereas Figure 4.2.3.1b shows the Text Time-DSC table on which the StreamGraph is based. Here, it can be seen that the height of each stream indicates the frequency of the corresponding feature at a given moment. For instance, in the first logogenetic moment (Headline), the only instance is of negative judgment. In the StreamGraph, this is indicated by a relatively large yellow stream at Headline, and zero heights of other streams (and thus the comparison is between negative judgment and other attitudes at this moment). In Paragraph 4, there are 5 instances of negative judgment, 2 of positive appreciation, and 1 of negative affect. Since negative judgment has its highest frequency at this moment, the yellow stream is at its maximum height (which also provides comparison between the feature at Para4 and at Headline).
By simultaneously showing multiple StreamGraphs in the same visualization view, we can compare and contrast the logogenetic patterns of features either with features of other discourse semantics systems (if the StreamGraphs are restricted to one text), or with the same features in other texts (if the StreamGraphs represent multiple texts). For example, by adding a StreamGraph of invoked attitudes to Figure 4.2.3.1 above, the resulting visualization (Figure 4.2.3.2) enables us to examine co-occurrences and interactions between attitudinal inscriptions and invocations as we move from one logogenetic moment to the next. From Figure 4.2.3.2, for instance, it can be seen that while inscribed negative judgment occurs in ‘rapid bursts’ as in paragraphs 1, 4 and 7, invoked negative judgment maintains a ‘continuous flow’ of occurrences during the unfolding of the text (yellow streams). Furthermore, it seems that inscriptions and invocations of negative affect (purple streams) do not tend to co-
occur, but rather complement each other. That is, as the author maintains a negative affect tone throughout the text, he does not combine inscriptions and invocations ‘logogenetically’. Instead, invoked negative affect is notably construed at the early moments of the texts (Para 1 and Para 3), whereas inscribed negative affect is mainly construed at later moments (Para 4 onwards). Inscribed and invoked negative appreciations (orange streams) show a quite similar complementary relationship, alternating between the two features: frequent invoked negative appreciation in Para 3, inscribed in Para 6 and then invoked again in Para 7.

Figure 4.2.3.2: StreamGraphs of invoked and inscribed attitudes in one text.

Whereas the previous examples are restricted to one text, AppAnn can provide StreamGraphs of multiple texts, as exemplified in Figure 4.2.3.3. Here, the systemic features of interest belong are couplings of three APPRAISAL systems: ATTITUDE TYPE (3 features: affect, judgment and appreciation), ATTITUDE POLARITY (2 features: positive and negative), and ENGAGEMENT (2 features: monoglossia and heteroglossia). This results in (3*2*2=) 12 possible couplings, and, thus, 12 streams in each StreamGraph.

105 Colour hues (and other visual properties) are controlled by the user through AppAnn SQEs (as discussed in section 4.2.1)
Since the logogenetic moments (generic stages) are shared by both texts, the two StreamGraphs should help us examine the logogenetic patterns of couplings within and across the two texts. For the sake of space and simplicity, the StreamGraphs will be partitioned into three sections and the discussion will focus on the three first stages.

Figure 4.2.3.3: an example of two StreamGraphs showing couplings in two texts.

Starting with the Headline stage, both texts open with negative judgment (of bin Laden and the US government). However, whereas negative judgment in Text 1’s Headline occurs within monoglossic and disclaimed propositions (Killing [monoglossic] Evil\textsuperscript{106} does not [disclaim] make us evil), it is coupled with engagement: proclaim in Text 2’s Headline (How Osama bin Laden perverted US justice). The heights of relevant streams at this stage are proportional to coupling frequencies: monogloss $\gamma$ negative judgment (1 instance) and disclaim $\gamma$ negative judgment (1 instance) in Text

\textsuperscript{106} As argued in section 3.3.2, evaluations in nominal groups are treated in this thesis as monoglossic.
1, and proclaim \textit{negative judgment} in Text 2 (2 instances). Consequently, the two streams (in teal and light blue representing the first and second couplings, respectively) at Text 1’s \textit{Headline} have relatively the same height, while the teal stream at Text 2’s \textit{Headline} is double this height, as shown in Figure 4.2.3.4.

In the \textit{Orientation} stage (Figure 4.2.3.5), both texts show a diversity of coupling patterns. However, whereas instances of couplings in Text 2’s \textit{Orientation} have quite similar distributions as indicated by the relatively similar heights of the streams, in Text 1’s there is a strong preference for three couplings: monogloss \textit{negative judgment} (green stream), monogloss \textit{positive judgment} (light blue), and heterogloss \textit{negative judgment} (teal). From the textual information on the right side, further details about these coupling instances can be obtained. For instance, it can be observed that monoglossic positive judgment is mainly of Americans (e.g. victories, civilized, smart, strong,
capable), and monoglossic negative judgment frequently targets both bin Laden and Bush’s administration (e.g. mass murderer, planned to kill countless more, solipsistic Republicans, Bush crew pushed), while the major source of heteroglossic negative judgment towards bin Laden is Bush’s administration (e.g. Osama was stuck.. unable to communicate). This diversity of couplings is not, however, as evident in the Thesis stages. As shown in Figure 4.2.3.6, Text 1’s Thesis includes three couplings: heterogloss γ negative judgment (3 instances), monogloss γ negative judgment (1 instance) and monogloss γ negative appreciation (1 instance). From the accompanying textual annotations, it can be seen that monoglossic negative attitudes target ‘voices against the killing’, whereas heteroglossic negative attitudes target bin Laden and the US government. By contrast, Text 2’s shows only one coupling: monogloss γ negative judgment, implicitly targeting the US government.

In closing, the possible interpretations of these preferences and their rhetorical functions will be discussed in the following chapter. The objective of this subsection is to illustrate how AppAnn StreamGraphs work in a discourse analysis context. Whether limited to one text or extended to multiple texts, StreamGraphs can foreground key logogenetic changes in discourse semantics features, and facilitate a comparative view of these features either in relation to other features in the same text or other texts.
I want memory, and justice, and revenge. When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more, that seems like the only civilized and morally sound response. We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again smart and strong and capable of finding our enemies and striking back at them without getting trapped in multitrillion-dollar Groundhog Day occupations. But within days, Naval Seal-gazing shifted to navel-gazing. There was the bad comedy of solipsistic Republicans with wounded egos trying to make it about how right they were and whining that George W. Bush was due more credit. Their attempt to renew the debate about torture is itself torture. Whereas the intelligence work that led to the destruction of Bin Laden was begun in the Bush administration, the cache of schemes taken from Osama’s Pakistan house debunked the fanciful narrative that the Bush crew pushed: that Osama was stuck in a cave unable to communicate, increasingly irrelevant and a mere symbol, rather than operational. Osama, in fact, was at the helm, spending his days whipping up bloody schemes to kill more Americans.

Osama bin Laden’s death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade. And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered. But the removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the “war on terror”.

Figure 4.2.3.5: StreamGraphs Example (Orientation stage)
As explained in the previous sections, StreamGraphs are, in fact, direct representations of contingency tables. That is, each cell in the table (be it raw frequency, relative frequency or conditional proportion) is visually encoded in the final visualization. In some discourse-analytical contexts, such detailed representations may be necessary if the aim is to have a scrutinizing view of every dimension in data. In other contexts (as will be seen in the following chapter), it may be more efficient to discard unimportant aspects of the data, in order to foreground significant patterns and key changes over text time. In this case, CrA can be applied to a Text Time-DSC contingency table (discussed in section 4.2.2) where one variable is logogenetic time (e.g. paragraphs, generic stages) and the other is discourse semantic features. The resulting CrA outputs can help us identify three things:

i) what discourse features tend to cluster together (i.e. similar in usage or distribution over text time);

ii) what logogenetic moments are similar or different in terms of the distribution or usage of features; and
iii) what features (or clusters of features) are important to (or significant in) what logogenetic moments in a text.

As a brief example, Figure 4.2.4.1 and Figure 4.2.4.2 show CrA plots of the Guardian column from the BLK corpus. In these figures, AppAnn CrA is applied to a Text Time-DSC contingency table (see section 4.2.2 above) where the row variable consists of generic stages and the column categories are ATTITUDE TYPE and POLARITY (i.e. six features: positive affect, negative affect, positive judgment and so on). Figure 4.2.4.1 provides a 2-D CrA plot of the first variable: generic stages. As previously explained, the distance between two or more logogenetic moments indicates how similar or different these moments are in terms of (usage or distribution of) linguistic features. Accordingly, in this example, the five stages Headline, Thesis, Argument 1, Argument 2, and Reiteration of Thesis are similar in terms of how the six ATTITUDE types are deployed by the writer. Similarly, the stages Initiation of Argumentation and Closure of Argumentation\textsuperscript{107} share, to a great extent, the same evaluative usage, whereas the Orientation stage seems to have a unique distribution of attitudes. Adding the second variable to the CrA plot can reveal what type of ATTITUDE characterizes (associated with or significant in) what generic stage. In Figure 4.2.4.2, it can be seen that Headline, Thesis, Argument 1, Argument 2 and Reiteration are clustered around negative judgment; whereas the Initiation and Closure of Argumentation are both associated with negative affect. The Orientation stage, by contrast, is uniquely characterized by positive affect.

\textsuperscript{107} Or Argument1 and Argument4 in the WiR model of genre (see Appendix II).
Figure 4.2.4.1: CrA Plot (ATTITUDE TYPE and generic stages)
Figure 4.2.4.2: clusters of generic stages around ATTITUDE TYPE.

These correlative associations between generic stages and attitudes can seemingly be interpreted in terms of evaluative prosodies (discussed in section 2.1.2.2.4). That is, since one or more ATTITUDE types are statistically associated with two (or more) generic stages, it can be argued that instances belonging to these types ‘resonate’, ‘radiate’ or ‘diffuse’ enough across these stages to create their own prosodic domain. For instance, as both the Initiation and Closure of Argumentation are associated with negative affect, it can be said the instances of negative affect resonate with each other to create a negative affect prosody stretching over the two stages.
Prosodic Resonance Diagrams (PRDs) is a visualization technique aiming to materialize these metaphors of ‘resonating’, ‘radiating’ or ‘diffusing’.

The design of a PRD is simple and straightforward (see Appendix V, section V.3.6). Logogenetic moments are represented by squares arranged from top to bottom according to text time. Based on the CrA results, a square’s colour hue indicates the APPRAISAL (or other discourse) feature with which the moment is statistically associated. Moments that are associated with the same feature are visually connected by curves (or edges) of the same colour hue. Furthermore, as some moments are more associated with certain features (i.e. closer in distance to the feature cube) than others, transparency is used to encode the actual distance: the more transparent a curve around a moment’s square, the further this moment is from the feature in the CrA plot. As an example, the CrA plot in Figure 4.2.4.2 is transformed into a PRD visualization in Figure 4.2.4.3. In the PRD, it can be seen that negative judgment logogenetically ‘resonates’ or ‘radiates’ across the Headline, Thesis, Argument 1, Argument 2, and Reiteration of Thesis stages. From the transparency of the curve connecting these stages, it seems that the peaks of negative judgment ‘resonance’ occur at Argument 1, Argument 2 and Reiteration of Thesis (as they are closer to negative judgment in the CrA plot in Figure 4.2.4.2), whereas the ‘troughs’ of its prosody occur at Thesis and Headline (as these two stages are relatively less associated with negative judgment). Similarly, negative affect resonates across the Initiation (where it has its peak) and Closure of Argumentation.
That is, AppAnn PRDs are re-visualizations of the CrA outputs of Text Time-DSC contingency tables. The clear advantage of PRDs over CrA plots in this case is that the former preserves the logogenetic time of the text, whereas the latter does not. In other words, in PRDs, logogenetic moments are represented by squares from top to bottom\textsuperscript{108}, whereas in CrA plots, the spheres or cubes representing logogenetic moments are plotted according to their associations with the factors or axes. Another

\textsuperscript{108} As discussed in section 2.2.3, position is optimal for representing ordinal data such as time.
advantage of PRDs here is their ability to show prosodic interactions (i.e. where a prosody is interrupted, interfered or superimposed\(^{109}\)). For instance, the negative affect prosody established between the *Initiation* and *Closure of Argumentation* stages in Figure 4.2.4.3 interrupts a negative judgment prosody established at the beginning of the text. This interruption is encoded by the crossing of dark purple and light green curves after the *Initiation of Argumentation* stage. Another prosodic interaction in the previous PRD occurs when the positive affect prosody established in the *Orientation* is ‘superimposed’ (or included) by the negative judgment prosody. Superimposition here influences our reading of the negative affect instances in the *Orientation*, as attitudes in this stage bear an interpretation in line with negative judgments. That is, even though the *Orientation* stage is characterized by positive affect (e.g. *breathe a sigh of relief* [inscribed]; *dreaded enemy no longer needs to be countered* [invoked]), these instances, due to their occurrence within a superimposing negative judgment prosody, can be read as negative judgment of *bin Laden* (e.g. negative veracity or propriety).

Finally, it should be mentioned that AppAnn PRDs are not restricted to single features of ATTITUDE. The SQEs (section 4.2.1) in a PRD’s settings can be modified to represent intra- as well as inter-couplings of ATTITUDE subsystems and other discourse semantics systems. Moreover, multiple PRDs (of different subsystems and/or texts) can be shown simultaneously in the visualization view for comparative purposes. In the following chapter, multiple PRDs are deployed in the visualization of (inter-metafunctional) couplings of APPRAISAL and IDEATION.

**4.2.5 AppAnn CircleViews**

Like StreamGraphs, AppAnn CircleViews aim to represent and track changes in distributions of discourse semantics features over text time (see Appendix V, section V.3.7). As discussed in section 2.2.6.1, the original CircleView technique developed by Keim, Schneidewind and Sips (2004) is proposed for the visualization of quantitative data (e.g. stock market prices) as they change over real time. AppAnn CircleViews visualization is a modified version concerned with the categorical features of discourse semantics as they evolve over logogenetic time. As illustrated in

\(^{109}\) The intersections between curves in AppAnn PRDs seems to indicate three types of prosodic interactions between attitudes: succession (when one evaluative prosody is followed by another), interference (when one evaluative prosody is interrupted by another), and superimposition (when one evaluative prosody culminates and decays within another).
Figure 4.2.5.1, AppAnn CircleViews have basically the same design as the original CircleViews. The circle is divided into parts each of which represents a discourse semantics feature (e.g. negative appreciation). Each part is then divided into segments (from inner to outer), where each segment stands for a logogenetic moment. The colour value or saturation of a segment indicates the relative frequency (or conditional proportion) of a feature at a given moment. For instance, in the logogenetic moment Para6 (circled in red), the negative judgment segment has the most saturated blue, negative appreciation is less saturated, and negative affect and positive appreciation are the least saturated. The saturation values indicate the relative frequencies\footnote{Relative frequencies can be row frequencies (as in this example) or column frequencies. Row frequencies (or conditionals) are obtained by dividing the frequency of a feature over the sum of other frequencies within the same moment. The focus is then on changes of a feature’s frequency with respect to other features within the same moment, rather than the same feature in other moments.}: 45.6% for negative judgment (5 instances in Para6), 36.4% for negative appreciation (4 instances), 9% for negative affect (1 instance) and 9% for positive appreciation (1 instance).

![Figure 4.2.5.1: AppAnn CircleView illustration.](image)
Using the same colour hues to encode all features (or categories), as in Figure 4.2.5.1, gives visual priority to relations between features within the same text. For instance, as all features in Figure 4.2.5.1 are encoded by the same colour scale from blue (highest frequency) to yellow (lowest frequency), similar distributional patterns (between e.g. positive appreciation and negative affect) can be more easily observed. By contrast, using a unique colour hue for each feature can be more effective when comparing multiple CircleViews (of different texts) simultaneously. As an example, Figure 4.2.5.2 shows two CircleViews of six ATTITUDE features in two texts. Each feature is given a unique colour hue (e.g. blue for negative affect and green for positive judgment), where colour saturation encodes relative frequency (i.e. the more saturated the more frequent and vice versa). This facilitates comparison of a feature across the two texts. For instance, the two CircleViews suggest that Text 2 uses negative appreciation (pink segments) in a constant basis with low to moderate frequency, whereas Text 1 deploys negative appreciation somewhere around the middle of the text with relatively higher frequencies. The opposite can be noticed for negative affect colour. To a great extent, negative affect is evenly distributed in Text 1 with alternating frequencies (i.e. low to high and vice versa). In Text 2, by contrast, it is mainly deployed in the middle stages with relatively high frequencies. Moreover, negative judgment colour shows similar distributional patterns in both texts: high frequencies in several consecutive moments with few gaps.
These and similar observations implicate that six ‘generalizable’ logogenetic patterns of APPRAISAL can be identified: **fade-in, fade-out, alternating, brusque, serene** and **erratic**\(^{111}\). The six patterns are exemplified in Figure 4.2.5.3. A fade-in pattern is represented by segments with a frequency decreasing, and thus restricting the prosodic domain of an evaluative feature (or a coupling) as the text unfolds (Figure 4.2.5.3a). A fade-out pattern is the opposite: frequency increases from one moment to the next, extending the prosodic domain as text time passes (Figure 4.2.5.3b). An alternating logogenetic pattern occurs when the frequency of an evaluative feature alternates from low (or medium) to high (and vice versa) over logogenetic time (Figure 4.2.5.3c). A brusque pattern is formed when a feature frequency suddenly increases after being very low several logogenetic moments (Figure 4.2.5.3d). A serene pattern occurs when an evaluative feature shows consistent low or medium frequencies throughout the whole (or large part of) the text with few or no gaps, as exemplified in Figure 4.2.5.3e. Finally, an erratic pattern is established.

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\(^{111}\) These patterns are by no means exhaustive and conclusive as they are restricted to my corpus. Furthermore, complex combinations of the six patterns (e.g. brusque-erratic or fade-out-in) can occur, as will be seen in Chapter 5 (and Appendix I).
when an evaluative feature shows irregular frequencies, e.g. high in two or more consecutive logogenetic moments, then low in other moments and so on (Figure 4.2.5.3f). Possible implications of these six patterns in terms of identity construction, logogenetic negotiation of belonging, affiliation and disaffiliation will be discussed in the following chapter.
4.2.6 Discourse Abstract Representation (DAR)

All the AppAnn visualization techniques discussed so far involve some statistical processing (e.g. relative frequencies, CrA associations). In other words, the visual encoding schemes in these techniques are based on indirect representations of discourse semantics features. Two AppAnn techniques, however, use direct visual mapping of discourse semantics instances: Discourse Abstract Representation (DAR) and Attitude Flares. This subsection is concerned with AppAnn DAR, whereas Flares are discussed in the following subsection. The DAR’s encoding scheme is direct as it replaces each discourse semantics instance with a simple object such as circle, square, curve and so forth, while preserving its original (relative) location in the text.

Figure 4.2.6.1 provides an example of a partial DAR visualization. Clauses are separated vertically by a space, and organized according to their actual position in the text. Each clause is represented by one or more proposition/proposal rectangles, the colour of which reflects the type of ENGAGEMENT involved. ATTITUDE instances are represented by discs, with colours indicating the ATTITUDE TYPE of the instance. Each attitude disc includes another smaller inner disc encoding the attitude target (or target class/group).

For instance, as the first clause in Figure 4.2.6.1 consists of one ‘entertaining’ proposition, it is represented in the DAR visualization by one green rectangle. The clause further proposes two negative judgement instances (realized in ‘pervert’\textsuperscript{112}). The two instances are in turn represented by two dark green discs. The classes/groups of ideational entities targeted by these two instances are bin Laden (indicated by the red\textsuperscript{113} inner disc) and the US government (light green inner disc). The second clause consists of one monoglossic proposition as indicated by the grey rectangle. This proposition includes two positive appreciation instances (two yellow discs) and one negative affect instance (one dark pink disc). Inner discs indicate that the ideational entity target of positive appreciation is bin Laden’s Death (blue inner disc), whereas the target of negative affect is bin Laden (red inner disc). By contrast, attitudes in the third clause are proposed through two different types of engagement. Positive affect (magenta disc) triggered by bin Laden’s killing (blue inner disc) is proposed through ‘proclaiming’ engagement (in ‘certainly….can breathe a sigh of relief’) as encoded by the yellow

\textsuperscript{112} As will be mentioned in Chapter 5, ‘pervert’ in ‘How Osama bin Laden perverted US justice’ is a negative judgment instance of bin Laden, and it can also be implicitly read as a negative judgment of the U.S (by presenting its justice as something pervertible).

\textsuperscript{113} Again, these colours are determined by the SQEs which are controlled by the user, prior to the visualization process.
rectangle. Negative judgment of bin Laden (green disc enclosing red one) and positive affect triggered by his death (magenta disc enclosing blue) are proposed monoglossically as indicated by the grey rectangle.

In addition to ATTITUDE, ENGAGEMENT and target entities, AppAnn DAR represents conjunctive relations (discussed in section 2.1.2.3). These relations are visually encoded by curved arrows connecting relevant clauses. Colour hues of conjunction arrows indicate CONJUNCTION TYPE, EXPLICITNESS, DEPENDENCY or ORIENTATION (or a systemic combination of the four systems114). For instance, in Figure 4.2.6.1, the internal addition relation (realized by the conjunction ‘and’ in clause [3]) is represented by a yellow curve connecting clause [3] back to [2]. Furthermore, the arrowhead of the curve shows the backward direction of this relation.

Figure 4.2.6.1: Example of a partial DAR visualization.

114 Again, SQEs (section 4.2.1) tell AppAnn what features of conjunction to visualize and what colour hues to encode these features.
In closing, through visual transformation of textual annotations into simple and familiar graphical objects, AppAnn DAR provides a detailed but compact representation of APPRAISAL and CONJUNCTION features in a text (for a video tutorial on this technique, see Appendix V, section V.3.9). This transformation is linear as it preserves the relative locations of instances, and, thus, preserves the time dimension of text. Consequently, DAR provides a logogenetic view on couplings and interactions between ATTITUDE, ENGAGEMENT and IDEATION. In Chapter 5, AppAnn DAR is used primarily for visualizing and analysing dynamic interactions between the three systems, and the affiliation processes arise from these interactions.

4.2.7 Attitude Flares
Like DAR, AppAnn Attitude Flares (Flares, for short) also applies direct mapping of systemic instances onto graphical elements, but with two major differences. First, Flares is not static—animation is used to encode text time. Second, it re-organizes ATTITUDE, ENGAGEMENT and CONJUNCTION instances around ideational entities rather than preserving their relative locations in a text. As illustrated in Figure 4.2.7.1, the first step in constructing a Flares visualization is to arrange ideational entities in a circular layout where the inner circle spheres represent attitude sources and the outer spheres represent attitude targets. It should be noted that, depending on the user’s configuration, either actual entities or classes/groups of entities can be used (for a video tutorial on Flares, see Appendix V, section V.3.8).

The next step is to encode ATTITUDE instances. Here, AppAnn uses the metaphor of a flare which can be defined as a visual element formed by variations in colour hue, value and brightness, as illustrated in Figure 4.2.7.2a. A flare’s colour encodes choices of attitude TYPE, POLARITY, or EXPLICITNESS (or systemic combinations thereof). Furthermore, similar flares around the same target entity are combined to form a larger, brighter flare of the same colour properties. Dissimilar flares (i.e. different attitudes towards the same entity) are combined in such a way that more frequent features are given more visual prominence. For instance, in Figure 4.2.7.2b, two green flares encode two instances of negative judgment of bin Laden (‘dreaded…could handle’), and one magenta flare encodes a negative affect instance triggered by bin Laden.
(‘feared’). These flares combine around bin Laden’s sphere to form a larger flare in which green is twice the size of magenta.

Moreover, each flare includes a ring (as shown in Figure 4.2.7.2a). The ring’s colour encodes the type of ENGAGEMENT associated with the attitude instance. For instance, as the affect instance in Figure 4.2.7.2b occurs in a monoglossic expression (‘bin Laden was an enemy...so feared’), the ring inside the magenta flare is given a white colour. By contrast, as one of the judgment instances is proposed through ‘disclaiming’ engagement (‘even after ten years, could handle’), the ring associated with its flare is given a red colour. Here again, the choice of colours is determined by the user’s SQEs.

Text time in AppAnn Flares is encoded by motion (see section 2.2.4), with user controls to move from one logogenetic moment to another. Once a user selects a moment (e.g. a particular generic stage), flares representing instances (of ATTITUDE and ENGAGEMENT) start to flow from source spheres towards target spheres, one by one, according to their location in the chosen moment. Furthermore, every flare leaves traces of motion as shown in Figure 4.2.7.2b. As discussed in section 2.2.4, traces can be effective for analytical purposes since they record prior motion frames. In Flares, traces also visually connect sources spheres with target ones, allowing the user to trace back the logogenesis of attitudinal instances, appraisers, and appraised entities.

\(^{115}\) Traces of flares can be optionally turned off by the user.
Figure 4.2.7.1: First step in Attitude Flares
Additionally, Flares allows for two modes of visualization: cumulative and non-cumulative. In the non-cumulative mode, previous flares are erased when the user moves to a new logogenetic moment. In the cumulative mode, flares from preceding moments are not erased, but allowed to combine with previous flares. For example, the red flares around bin Laden’s sphere in Figure 4.2.7.3 indicate negative attitudes. At the first logogenetic moment, *Headline*, there is only one negative instance towards bin
Laden, and thereby only one red flare around bin Laden’s sphere. When we move to the next moment, Orientation, this flare is erased, in the non-cumulative mode, and only new flares are drawn (Figure 4.2.7.3b). In the cumulative mode, the first flare is combined with the new (two) flares in the Orientation, as shown in Figure 4.2.7.3c. Analytically, the cumulative mode can be more effective when examining how previous choices of ATTITUDE influence current choices (i.e. how new instances resonate with previous ones). Non-cumulative Flares, by contrast, can help focus our analytical attention to instances within the current moment.

The final Flares should provide an overall detailed view on interactions between instances of APPRAISAL in a text. Since this view can be, to some extent, visually complex, Flares have three interactivity functionalities (interactivity is discussed in section 2.2.4). First, AppAnn allows the user to zoom in to specific areas of the Flares, and zoom out to get a broader view. Second, Flares can be unpacked (i.e. separated by relatively large distances as shown in Figure 4.2.7.2b), which provides a more detailed look into attitudes around a target sphere (i.e. Focus+Context as discussed in section 2.2.4). Third, textual annotations related to a particular flare can be viewed when the user right-clicks on the flare (i.e. Details-On-Demand as shown in Figure 4.2.7.2 above). These functionalities are illustrated in the video tutorial in the attached CD-ROM (see Appendix V, section V.3.8). In Chapter 5, we will see that Flares can be particularly useful in visualizing the dynamics of APPRAISAL in relation to identity negotiation and affiliation.
Figure 4.2.7.3: cumulative (b) and non-cumulative (c) modes of Flares
4.3 Concluding Remarks
In section 4.1, a number of linguistic visualizations are critically reviewed. The review shows that these techniques cannot be deployed effectively in systemic discourse analysis due to their main focus on lexical items (i.e. highly delicate features), as well as their lack of ability to provide both synoptic and dynamic views on linguistic features and to simultaneously visualize interactions of multiple language systems. Consequently, six AppAnn visualizations are offered and described in section 4.2. AppAnn techniques overcome the limitations of previous LInfoVis by providing synoptic and dynamic views on discourse semantics features, and being in line with systemic fundamental concepts such as system, choice, instance, paradigmatic/syntagmatic axis, instantiation, delicacy and metafunction (a review of these concepts are provided in section 2.1).

The synoptic representations offered by AppAnn CrA allow us to examine the overall patterns associated with a corpus, subcorpus or a text. These patterns can be of single discourse semantics features (e.g. attitudes) or couplings (e.g. attitude γ engagement γ ideation). In other words, the questions that can be explored here include what feature is characteristic to a particular group of texts, what features tend to be coupled in a subcorpus, what coupling is preferred (over other possible couplings) by a group of writers and so forth. As far as identity negotiation, affiliation and rhetoric are concerned, CrA plots are deployed in the following chapter (and Appendix I) to visualize dominant identities, key affiliation and in-group/out-group negotiation patterns, and salient rhetorical motifs in the BLK corpus.

Multiple StreamGraphs and CircleViews provide a logogenetic view on variations of features’ (or couplings of features’) frequencies as text unfolds. The underlying assumption here is that variations of relative frequencies can reflect key logogenetic patterns (see e.g. Matthiessen, 2002; Rothery & Stenglin, 2000; Fries, 1985; Yang, 2010). In this thesis, it is also assumed that relative frequencies can reflect degrees of prominence of discourse features. However, whereas AppAnn CircleViews can be particularly useful for identifying variations of prominence patterns over text time, StreamGraphs can foreground co-variation patterns of systemic features. The two visualizations are used in Chapter 5 to explore questions such as how the prominence of bonds (proposed through evaluative couplings) vary as we move from one
logogenetic moment to another, and how choices of ENGAGEMENT interact with the negotiation process of a bond during the unfolding of a text.

By combining CrA outputs with text time, Prosodic Resonance Diagram (PRD) offers a broader dynamic view on systemic features. The main concern of this technique is to identify key associations between features (or couplings thereof) and logogenetic moments. Again, the underlying assumption here is that logogenetic patterns of significance (association or correlation) may reflect prosodic resonance or reaction between evaluative instances and across text time. In the following chapter, PRDs are mainly deployed to explore the logogenesis of authorial commitment, by visualizing variations in associations between ENGAGEMENT, ATTITUDE EXPLICITNESS and generic stages.

Finally, DAR and Flares offer a more detailed dynamic representation of discourse semantic features. This representation is based on visualizing systemic instances of ATTITUDE, ENGAGEMENT, ideational entities and CONJUNCTION at smaller logogenetic moments such as clauses and sentences. In turn, the two techniques may be helpful in identifying intra-stage patterns of interpersonal and logical meanings. However, whereas visual priority in Flares is given to sources and targets of ATTITUDE, DAR foregrounds systemic interactions between APPRAISAL subsystems. In Chapter 5, both visualizations are chiefly used to explore the dynamic negotiation of evaluative couplings, in-group and out-group bonds, and authorial identities. In addition, DAR is deployed to visualize phases of affiliation and construction of communities.

Table 4.2.7.1 summarizes the distinctive characteristics of each AppAnn visualization and its contexts of application in the next chapter and Appendix I.

<table>
<thead>
<tr>
<th>Kind of patterns</th>
<th>Application in Chapter 5 and Appendix I</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CrA</strong></td>
<td>Synoptic overall patterns of key features and couplings of discourse semantics choices</td>
</tr>
<tr>
<td></td>
<td>Key rhetorical motifs and syndromes; dominant identities; central in-group bonds; key evaluative couplings of attitude γ engagement γ ideation</td>
</tr>
<tr>
<td><strong>StreamGraphs</strong></td>
<td>Logogenetic co-variations of systemic features</td>
</tr>
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<td></td>
<td>Logogenetic co-variations of evaluative couplings of attitude γ engagement γ ideation; co-variations in commitment towards in-group</td>
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<tr>
<td><strong>CircleViews</strong></td>
<td>Prominence patterns over time</td>
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<tr>
<td><strong>PRD</strong></td>
<td>Key associations between systemic features and logogenetic moments</td>
</tr>
<tr>
<td><strong>DAR</strong></td>
<td>Detailed representation of discourse features and couplings; visual priority to APPRAISAL co-choices and CONJUNCTION</td>
</tr>
<tr>
<td><strong>Flares</strong></td>
<td>Detailed representation of discourse features and prosodic interactions; visual priority to ideational sources and targets of ATTITUDE</td>
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Table 4.2.7.1: Key characteristics of AppAnn visualizations and their contexts of application
Chapter 5 Visualizing Discourse Semantics, Identity and Affiliation in the AGAINST Subcorpus

The primary aim of this chapter is to illustrate how AppAnn visualizations are applied to the discourse semantics analyses of the ‘against the killing’ subcorpus (given in Appendices II, III and IV). As emphasized in the introductory chapter, these analyses are by no means conclusive and they are intended to be show how the visualizations can be implemented in discourse analysis.

More specifically, the chapter demonstrates how AppAnn visualizations are used to foreground covert linguistic patterns and confirm important observations, in relation to the linguistic question of this thesis

how the AGAINST writers use couplings of APPRAISAL, IDEATION and CONJUNCTION to rhetorically align/disalign target readers with a view arguing against (or for the killing), to negotiate solidarity and establish communities around the killing issue, and to affiliate or disaffiliate with these communities.

In other words, this chapter puts into practice the theoretical and technical aspects delineated in the previous chapters, as it integrates SFL concepts and discourse analysis with systemic linguistic visualization.

The chapter is divided into two main sections. Section 5.1 is concerned with the synoptic patterns associated with the key authorial identities in the AGAINST subcorpus. The synoptic analysis focuses on couplings of APPRAISAL and IDEATION from a subcorpus point of instantiation. The aim is to identify and visualize the recurrent coupling patterns that realize the overall rhetorical motifs in the AGAINST articles and through which the writers construe for themselves particular identities, present themselves as in-group members and align readers into the AGAINST communities. The findings of this section are then discussed in terms of SFL hierarchies (instantiation, individuation and affiliation) with the aim of hypothesizing how these patterns of meaning are instantiated in the subcorpus, and how they are allocated to the writers’ repertoires by the culture (sub-cultures and communities). As
this section is more concerned with instantiation at a subcorpus level, the main visualization deployed here is AppAnn CrA (discussed in section 4.2.2).

In section 5.2, the analytical focus on coupling is shifted from a static, synoptic view to a dynamic one. The dynamic analysis is concerned with how choices of APPRAISAL, ideational entities and CONJUNCTION couple and decouple during the logogenetic unfolding of AGAINST texts, in order to achieve certain rhetorical manoeuvres, to affiliate with in-groups and disaffiliate with out-groups, to affirm communal belonging and to justify authorial membership to AGAINST communities around the bin Laden’s killing. In addition, the logogenetic process of coupling is examined in relation to generic structure, text-type and social purposes of the texts. The aim of this examination is to determine (and visualize) how text type influences the affiliation process and negotiation of bonds in the AGAINST articles.

Although this chapter focuses on the rhetorical patterns in the AGAINST subcorpus, comparable patterns are also found in the ‘for the killing’ articles. However, due to limitations on space, the visualization, interpretation and discussion of discourse semantic couplings in the FOR subcorpus are given in Appendix I. In the next chapter, some key similarities and differences between the two subcorpora will be highlighted.

5.1 Synoptic Patterns
As discussed in section 3.2, Martin (2004b) and Martin & White (2005) observe that op-eds and editorials are significantly associated with commentator voice, which is rhetorically characterized by unmediated (authorially-sourced) inscriptions of both social-sanction and social-esteem judgment. In the BLK (short for Bin Laden Killing) corpus, this voice is ‘synoptically’ evident from the high frequencies of unmediated inscribed judgment relative to other ATTITUDE subtypes, as shown in Appendix IV. Nonetheless, in order to move beyond commentator voice and investigate how the writers construct various identities (arguing against the killing) and deploy various rhetorical strategies in relation to the overall social purposes of the texts, we need to look into two further patterns:
i) patterns of co-occurrences of APPRAISAL choices (i.e. intra- and inter-systemic couplings), and

ii) patterns of combinations of APPRAISAL and other discourse semantics choices (i.e. inter-metafunctional couplings).

In this section, both types of patterns will be explored from a synoptic perspective to determine the overall recurrent rhetorical motifs associated with the AGAINST voices. The focal point of instantiation that we are concerned with here is the subcorpus level between the commentator voice and the actual evaluative instances.

5.1.1 Arguing against the killing: constructing the Humanist identity

The overall persuasive strategies for arguing against the killing in the BLK corpus are based upon constructing a Humanist identity. Humanism is often described as “an ideology based on the centrality of humankind” (Stokes, 2007:361) and the humanist identity is generally characterized by giving “special importance to human concerns [and] values” (Law, 2013:263) and by “striving toward a society in which freedom, justice, tolerance, respect for human dignity and solidarity are central” (Stoker, 1996:160). In the AGAINST subcorpus, a dominant Humanist voice is expressed through two constellations (or motifs) of meaning: on the one hand, through rhetorical appeals to international laws as well as shared cultural values of human rights and justice; and on the other hand, through the moral censure of those who violate and abuse these laws and rights. In this section, I will discuss

i) how these meaning motifs are juxtaposed to construct the humanist identity in the AGAINST subcorpus,

ii) how these meanings are manifested through co-articulations of interpersonal resources and negotiated through interactions between APPRAISAL and ideational choices to achieve the rhetorical objectives of the AGAINST articles and to create rapport with target audiences,

and iii) how various communities of readers are positioned or re-positioned around different authorial values naturalised by the AGAINST texts.
The discussion is further extended to describe significant inter-metafunctional couplings of APPRAISAL choices and ideational entities (or ‘evaluative couplings’ to use Knight’s 2010a terms) in terms of bonds, affiliation and individuation. Furthermore, AppAnn CrA visualization (described in section 4.2.2 above) will be shown to be particularly useful in detecting and highlighting clusters of evaluative couplings that characterize the AGAINST articles and create the patterns of meaning associated with the humanist argumentation.

5.1.1.1 Advocating the rule of law and civil justice, and denouncing the killing

A key rhetorical motif that shapes the Humanist voice in the four AGAINST articles is to promote Osama bin Laden’s right to a fair trial, as well as adherence to international laws and norms regarding the humane treatment of prisoners; and to frame the killing as a clear case of violating these rights and norms. Linguistically, the motif is manifested in an evaluative cluster of intra-systemic and inter-metafunctional couplings of APPRAISAL choices and ideational entities. This evaluative cluster is chiefly formed by two kinds of couplings:

i) negative attitudes targeting bin Laden’s killing, and

ii) positive attitudes targeting entities such as the law, justice, bin Laden’s capture and trial.

By the first coupling (denoted by negative $\gamma$ killing), readers are invited to align attitudinally with the AGAINST position that the killing operation is unlawful, inhumane, a missed opportunity to expose who bin Laden really is, and a fulfilment of his wish to die as a ‘martyr’. These meanings are illustrated in the following extracts:
In extract [1], the writer vehemently objects to President Obama’s statement following the killing that “Justice is done.” The underlined evaluations strongly imply that the killing operation is blatantly unjust. Similarly, extract [2] explicitly rejects the US view that the operation is lawful as invalid. In the third extract, the sequence of legal terms (e.g. assassination, liquidation, termination) is deployed to evaluate the killing as illegal and inhuman. The Guardian and USA Today columnists in extracts [4] and [5] evaluate the killing, as, in addition to its illegality, a failure to expose bin Laden’s vanity and evilness through an open and fair trial. The last extract presents the operation as an attainment of bin Laden’s desire to die as a martyr, and thus aligns the readers with the overall negative position towards the killing.

Through the second evaluative coupling (positive γ law), the AGAINST writers present themselves as aligned with the position that capturing bin Laden and putting him in a fair trial promotes adherence to international laws and ensures human rights, and, thus, it is the humane alternative to the killing. These axiological meanings are exemplified in the following extracts:
The USA Today columnist in the first extract advances the value position that conformity to international laws regarding human rights protection leads to a better and more humane world. The second extract credits the success of democratic societies to their adherence to the rule of law. In both extracts, equating the acceptance of and conformity to the laws with positive evaluations (i.e. secure, democratic, better) invites the readers to share the humanist point of view that capturing and putting bin Laden on trial would better serve justice and provide humane punishment. Extract [4] and [5] set up a comparison between bringing bin Laden down and bringing him to trial. Here, positive evaluations of the capture (e.g. better, urging, civilization) and negative evaluations of the killing (e.g. making him a martyr, barbarism, rule of the jungle) are coupled (forming a coupling of couplings) to construct a ‘rhetorical contradistinction’, so to speak, aiming to align readers with a view denouncing the killing and supporting a lawful capture, and to simultaneously motivate disalignment with a view praising the killing.

The two sets of examples indicate an association between positive attitudes (mainly appreciation: valuation) and the ‘law’ group of entities as well as negative attitudes (mainly appreciation: valuation) and the ‘killing’ ideational group. The next step is to examine whether this cluster of couplings (and thus its associated rhetorical force of aligning the audience with the authorial viewpoint towards the ‘law’ and ‘killing’) is characteristic to the AGAINST subcorpus as opposed to the FOR.
subcorpus. To do so, AppAnn CrA is applied to the joint frequencies (i.e. the frequency of co-occurrences) of ATTITUDE instances and ideational targets in both subcorpora, resulting in the CrA plots in Figure 5.1.1.1.

The CrA plot in Figure 5.1.1.1a shows that coupling positive appreciation with the ‘law’ entity group as target of evaluation and coupling negative appreciation with the ‘killing’ entity group are (statistically) very significant in the AGAINST articles. This significance, as illustrated in section 4.2.2 above, is encoded by the spatial distance between the yellow spheres (representing entity groups) and the green cubes (representing the six types of ATTITUDE). The correlation coefficient (=0.7) indicates that this cluster of couplings (\(+\text{app} \gamma \text{law}\) and \(-\text{app} \gamma \text{killing}\)) is (at least) 70% more associated with the AGAINST subcorpus. By comparison, the CrA plot in Figure 5.1.1.1b shows that in the FOR subcorpus, both ‘killing’ and ‘law’ entities tend to be coupled with positive (namely positive affect and appreciation) rather than negative evaluations (as will be further discussed later). This suggests, therefore, that ‘decrying the killing and presenting its alternatives (e.g. capture, trial) as more humane and universally acceptable is a key rhetorical strategy to align the target audience with the authorial view against the killing.
Figure 5.1.1: a) An AppAnn CrA plot of a table cross-classifying the six types of attitudes and ideational entity groups in the AGAINST subcorpus: the plot shows a significant cluster of couplings.
between negative appreciation and ‘killing’ entity group as well as positive appreciation and ‘law’ entity group; and hence that advocating laws, capturing and putting bin Laden on trial as well as condemning the killing as unlawful and inhumane is a characteristic rhetorical pattern in the AGAINST subcorpus. b) A CrA plot of the same cross-classification indicates that a different cluster of evaluative meanings is found in the FOR subcorpus as discussed in Appendix I.

Moreover, the previous examples suggest that alignment of readers with the overall value position against the killing in this subcorpus is rhetorically tactical and audience-sensitive. As shown in Appendix VI, both international and US population surveys about killing instead of capturing bin Laden conclude with a majority (around 93 percent) approving the killing. The AGAINST writers seem to take this fact into consideration, as reflected by the degree of ‘commitment’ associated with evaluating the ‘killing’ and ‘law’ entities. Commitment is a notion used by Martin (2008a:45) to refer to “the amount of meaning potential activated in a particular process of instantiation”. In APPRAISAL, degrees of explicitness (discussed in section 2.1.2.2) can be re-interpreted in terms of commitment as a cline with ‘inscribing’ as the most attitudinally committed and ‘affording’ as the least (Martin, 2008:47). As far as writer-reader relationship is concerned, attitudinal commitment, then, determines “the degree of freedom allowed readers in aligning with the values naturalised by the text” (Martin & White, 2005:67). In the AGAINST subcorpus, it can be observed that readers are given more freedom to align with the negative authorial values towards the ‘killing’ as these values are minimally committed by encoding them through invocations (as in e.g. we ran, knowingly, from the chance to hold him in custody…). The threat to solidarity with a potential majority of readers that support the killing is therefore ‘rhetorically’ minimized. By contrast, this freedom of alignment is, to a great extent, restricted when positively evaluating ‘law’ (‘justice’, ‘capture’ etc.) entities as attitudes targeting these entities are mainly inscribed (as in e.g. it would have been far better to demystify bin Laden…). Here, solidarity with only those who do not see the capture of bin Laden as a valid option (around 60 percent of the surveyed sample; see Appendix VI) is at risk.

Linguistically, these rhetorical, audience-sensitive strategies are manifested through a cluster of evaluative couplings of: i) inscribed ATTITUDE choices with the ‘law’ entities; and ii) invoked choices with the ‘killing’ entities. The AppAnn CrA plot
in Figure 5.1.1.2 shows that this cluster of couplings is statistically significant in the AGAINST texts (with a correlation coefficient of 47%). In this plot, it can be seen from the distances between cubes and spheres (circled in red) that the Bin Laden’s killing entity group is strongly associated with invoked evaluations while the ‘law’ entity group is more associated with inscribed evaluations. (Different alignment strategies with respect to the two entity groups are observed in the FOR subcorpus as discussed in Appendix I, section I.1).

Figure 5.1.1.2: An AppAnn CrA plot of a table cross-classifying entity groups and DEGREES OF EXPLICITNESS choices in the AGAINST subcorpus: the plot shows that coupling of bin Laden’s ‘killing’ entities with invocations and ‘law’ entities with ‘inscriptions’ is particularly significant in this subcorpus. The significance of this coupling cluster indicates that attempting to establish positive solidarity with a majority approving the killing is a crucial rhetorical strategy for arguing against the killing operation.
Although the AGAINST writers show less commitment towards evaluating the ‘killing’ entities and more commitment towards evaluating the ‘law’ entities, they assign different degrees of commitment to the propositions/proposals that overall the ‘killing’ is negative and overall the rule of ‘law’ is positive. This is illustrated in the following extracts:

1) *It would have been far better to demystify bin Laden by having this hateful and hate-filled man screaming from the dock or lying from the witness box...* [USA Today column]

2) *It may be painful and problematic, I argued, but that is the difference between them and us. It’s civilisation versus barbarism* [Daily Telegraph column]

3) *Osama bin Laden’s death was murder, plain and simple.* [Guardian column]

In extract [1], the explicit evaluative proposition that capturing and trying bin Laden in a court of law is better than killing him is authorially presented through entertaining engagement (underlined) as but one of several valid viewpoints, opening up the dialogic space for alternative positions that ‘capture’ and ‘trial’ may not be positive options. In the second extract, the proposition that ‘capture’ and ‘trial’ are valid because they mark the difference between a ‘civilized’ society and a ‘barbarian’ one is advanced by the columnist through countering engagement as counter-expectant. Here, though the space for alternative viewpoints towards these entities is, when compared to extract [1], more restricted and dialogistically contracted, there is still some recognition of these alternatives. As far as writer-reader relationship is concerned, the heteroglossic presentation of the positive value position about the ‘law’ entities provides a possibility of solidarity with those who are not in favour of capturing bin Laden or who do not regard international laws and human rights as being applicable when dealing with terrorists. By contrast, the Guardian columnist’s proposition that the ‘killing’ is wrong and unlawful is given in extract [3] as unquestionable and non-negotiable through monoglossic engagement. Here, because the dialogic space for alternative positions about the ‘killing’ is totally closed, solidarity with a potential majority approving the killing is at obvious risk.

This pattern of propositional commitment (i.e. author’s commitment towards a proposition/proposal) is encoded in a cluster of two couplings: monoglossic γ attitudes about the ‘killing’ entities and heteroglossic γ attitudes about the ‘law’ entities. This
cluster is highlighted (by red circles) in the AppAnn CrA plot in Figure 5.1.1.3. Given the distances between yellow spheres (representing ideational entity groups) and blue cubes (representing the two options of ENGAGEMENT), the plot shows that evaluations of bin Laden’s killing in the AGAINST subcorpus is (about 22%) more associated with monoglossic propositions, whereas evaluations of ‘law’, ‘justice’, ‘capture’ and ‘trial’ entities are more coupled with heteroglossic propositions.

Figure 5.1.1.3: An AppAnn CrA plot of a table cross-classifying instances of ENGAGEMENT and ideational entity groups in the AGAINST subcorpus: the plot shows that a cluster involving coupling monoglossic choices with evaluations towards the ‘killing’ and heteroglossic choices with evaluations towards the ‘law’ entity group is significant in this subcorpus. The statistical significance of this cluster indicates that a rhetorical strategy for arguing against the killing is to fend off other viewpoints about the ‘killing’ while making allowances for dialogically alternative positions about ‘law’, ‘capture’, ‘trial’ and similar entities.
What is particularly noteworthy here is the rhetorical effect resulting from the interaction between the two kinds of commitment (i.e. ‘propositional’ commitment and ‘attitudinal’ commitment) which are, in return, manifested by combinations of choices of EXPLICITNESS, ENGAGEMENT and attitudes towards the ‘killing’ and ‘law’ entity groups. The simultaneous expression of a maximum degree of propositional commitment (through monoglossic engagement) and a low degree of attitudinal commitment (through invocation) to the evaluation of the ‘killing’ creates a rhetorical tension, so to speak, between closing the space for other viewpoints of the ‘killing’, and increasing freedom for addressee’s interpretation of authorial values about the ‘killing’ (or authorial reliance on the readers sharing the negative values of the ‘killing’). Similarly, expressing a lower degree of propositional commitment (through heteroglossic engagement) and, simultaneously, a high degree of attitudinal commitment (through inscription) to the evaluation of the ‘law’, ‘capture’ and similar entities creates a tension between opening up the space for other viewpoints about these entities, and significantly limiting the freedom for reader’s interpretation of these values. One possible rhetorical objective of combining varying degrees of both ‘propositional’ and ‘attitudinal’ commitment here is to balance the risk to solidarity with (a potential majority of) readers who do not happen to subscribe to the negative values of the ‘killing’ or the positive values of its alternatives. This interaction between ‘propositional’ and ‘attitudinal’ commitment is illustrated diagrammatically in Figure 5.1.1.4 below.
Figure 5.1.1.4: A topological perspective on the ‘inverse correlation’ between propositional and attitudinal commitment to the evaluations of the ‘killing’ and its alternatives in the AGAINST subcorpus. This diagram shows that low propositional commitment is balanced by high attitudinal commitment and vice versa. That is, risks to solidarity (with resistant readers) imposed by high degrees of either kind of commitment is reduced (or cancelled out) by the other.

5.1.1.2 Condemning terrorism and reprimanding the US
A second key rhetorical motif that contributes to the construction of a humanist voice arguing against the killing is to denounce the violation of humanitarian laws and human rights norms by censuring those who contravene them. As far as killing bin Laden is concerned, there are two entity groups involved in this contravention: terrorists including bin Laden and Al-Qaeda members, and the U.S. government as well as its officials. Linguistically, the condemnation of these entities in the AGAINST subcorpus is manifested in an evaluative cluster mainly formed by two couplings:

i) negative attitudes targeting bin Laden and Al-Qaeda members, and
ii) negative attitudes targeting the U.S. government and the Navy SEALs.
The first evaluative coupling (denoted by negative $\gamma$ terrorists) functions rhetorically to turn away (and disaffiliate) with a potential minority of readers who may be affiliated with Al-Qaeda, and to concur and bond with a global anti-terrorism community. More importantly, it is intended to ward off a possible misunderstanding that condemning the killing of bin Laden implies some sympathy or approval with terrorists, and to indicate (and ensure) that the AGAINST writers are in total disalignment with terrorism. These meanings are exemplified in the following extracts:

1) Bin Laden was an enemy so dreaded and so feared that his killing by military execution… [Guardian Column]

2) bin Laden's death is the end of the menace of al-Qaida as we know it [Guardian Column]

3) bin Laden was a false prophet with an inhuman and worthless cause [USA Today Column]

4) the mass murderer should be put on trial [Daily Telegraph Column]

5) Having been completely obscured by the events of the Arab spring, al-Qaeda would be back on the airwaves recruiting again… [Daily Telegraph Column]

6) that without his leadership, a diffuse network, frayed at the edges by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray [Guardian Column]

In the first four extracts, bin Laden is a target of a variety of negative social-sanction instances (underlined) including dreadedness, inhumanity and falseness. In the remaining extracts, Al-Qaeda’s members are a target of negative social-esteem instances of normality (obscureness) and capacity (disorder).

The second evaluative coupling (negative $\gamma$ the U.S.) has the rhetorical function of castigating the United States for killing bin Laden without a trial and aligning the readers into the value position that the U.S. violated a basic human right by doing so. This evaluative coupling is demonstrated in the following extracts:
According to extracts [1] and [2], under the so-called ‘war on terror’ which led to killing bin Laden without a trial, the United States compromises its liberal principles and moral legitimacy, and, thus, its reliance on the rule of law. In extract [3], the Gazette editor questions the accuracy of Obama’s statement that justice was done, and, therefore, the U.S. government’s veracity and integrity are also called into question. The Daily Telegraph columnist in extract [4] is a bit more explicit in judging the United States’ veracity (as well as propriety) as he describes the use of terms such as ‘hostile act’ as misleading and delusive and meant to obscure the fact that the killing was an extrajudicial execution.

Worth noting in these extracts is the use of the ‘communal’ pronoun ‘we’ as the target of negative evaluations of the U.S. government. Communal pronouns (or ‘rhetorical pronouns’ to use Quirk’s et al terms) have the communicative effect of establishing “a common bond” between the reader and writer (Thorne, 2006:31), and giving “the collective sense of the ‘nation’, ‘the party’ etc.” (Quirk et al, 1985:350; see also Harwood, 2005:346; Mühlhäusler & Harré, 1990 and Wales, 1996). Using the pronoun ‘we’ to negatively judge the U.S. (as in e.g. extracts [2] and [4]) is probably intended to serve both a retrospective and a prospective rhetorical function. Retrospectively, the writers implicate that “as we, Americans, allowed our government to violate humanitarian laws and human rights, we share culpability in this violation” and, hence, culpability in the killing of an unarmed man without a trial. Prospectively, the writers attempt to re-align readers who are presumed to be resistant to the AGAINST position by construing the approval of the killing as morally equivalent to
committing the killing, and, thus, such readers may also be subject to the same negative judgment.

The strong association, suggested by the previous examples, between the cluster of couplings (negative $\gamma$ the U.S and negative $\gamma$ bin Laden and terrorists) and the AGAINST subcorpus is visually depicted in the AppAnn CrA plot in Figure 5.1.1.5 (circled in red). In this plot, it can be seen that the (pink) spheres representing bin Laden and Al-Qaeda entity groups as well as the (cyan) sphere representing the U.S. entity group are sufficiently close to the negative judgment (blue) cube. The correlation coefficient (=74%) is high enough to conclude that this cluster of couplings is particularly characteristic of the AGAINST subcorpus (when compared to the FOR subcorpus, as discussed in Appendix I, section I.1), and, therefore, condemning terrorists and reprimanding the U.S. is a key rhetorical tactic for arguing against the killing and repositioning readers to disapprove of it.
Figure 5.1.1.5: An AppAnn CrA plot of a table cross-classifying the BLK entity groups and the six types of ATTITUDE: the plot shows that the cluster of coupling bin Laden, Al-Qaeda and the U.S. with negative judgment values is significant in the AGAISNT subcorpus (circled in red). The significance of this cluster indicates that condemning terrorism and criticizing the U.S. is a key rhetorical strategy for arguing against the killing and aligning readers to this point of view.

The previous two sets of extracts also indicate varying degrees of attitudinal commitment associated with the negative evaluations of bin Laden and the U.S. government in the AGAISNT subcorpus. The writers tend to assign high ‘attitudinal’ commitment to the evaluations of bin Laden (as in e.g. bin Laden was a false prophet with an inhuman and worthless cause), and low ‘attitudinal’ commitment to the evaluations of the U.S. government and its officials (as in e.g. the United States rolled back its hallowed notions of civil liberties). Again, these varying degrees of commitment seem to be tactical and audience-sensitive. That is, as the writers presume a majority of nationalists approving
the killing as indicated by the surveys (given in Appendix VI), this majority is given more ‘attitudinal’ freedom (through low attitudinal commitment) to align with the negative value position that the U.S. has, in fact, committed a crime by extrajudicially killing bin Laden. Thus, solidarity with these readers is at lower risk. By contrast, assigning high ‘attitudinal’ commitment to the negative evaluations of bin Laden explicitly presents the AGAINST writers as strongly aligned with a global position against terrorists, and creates communal relations of rapport between the writers and a nationwide community of anti-terrorism. These tactical, audience-focused variations of attitudinal commitment are linguistically encoded in a cluster of couplings between, on the one hand, negative inscriptions and bin Laden entity, and, on the other hand, negative invocations and the U.S. government, officials, agents and similar entities. The AppAnn CrA plot in Figure 5.1.1.6 shows that this cluster of couplings (circled in red) is (at least 53%) more associated with the AGAINST subcorpus.

Figure 5.1.1.6: An AppAnn CrA plot of a table cross-classifying POLARITY of attitude, DEGREE OF EXPLICITNESS and the entity groups in the AGAINST subcorpus: the plot shows that coupling bin Laden entity group with negative inscriptions and the U.S. entities with negative invocations is
particularly significant in the AGAINST subcorpus. The significance of these couplings indicate that i) establishing strong solidarity with a potential majority of nationalists by assigning low attitudinal commitment to the negative evaluations of the U.S. government, and ii) creating rapport with a global community of anti-terrorism by assigning high attitudinal commitment to the negative evaluations of terrorists, are two key rhetorical strategies for arguing against the killing.

Interestingly, these degrees of attitudinal commitment resonate with equivalent degrees of propositional commitment in order to maintain solidarity with target audience. The propositions that bin Laden and Al-Qaeda are “evil”, “inhumane” and “wrong” are enacted with high commitment as they are authorially presented as a given, taken-for-granted, inalienable truth, as in e.g. *bin Laden is a false prophet*. By contrast, propositions that the U.S. government and the Navy SEALs (and similar entities) are “inhumane”, “unjust” and “wrong” are enacted with lower commitment as they are formulated in such a way that alternative viewpoints are dialogistically recognized or engaged with. For instance, in the following extract, the evaluative proposition that the U.S committed a murder is presented (through underlined pronunciation engagement) as dialogistically negotiable and open, though to a very limited extent, to alternative opinions.

*The evidence so far indicates that the U.S. murdered Osama*

This indicates that a cluster of coupling i) monoglossic engagement with negative evaluations of bin Laden and Al-Qaeda entities and ii) heteroglossic engagement with the U.S. government, officials and agents is significant in the AGAINST subcorpus. This significance is visually confirmed by the AppAnn CrA plot in Figure 5.1.1.7. The plot shows that the blue sphere (marked by a red arrow\(^\text{117}\)) representing evaluations of bin Laden and Al-Qaeda entities is closer to the monoglossia (orange) cube than the heteroglossia one, whereas the spheres representing the U.S. entity groups are noticeably closer to the heteroglossia cube. Statistically, this cluster of couplings (circled in red) is (at least 30%) more associated with the AGAINST subcorpus.

\(^{117}\) Red arrows and circles are added manually for clarification purposes.
Figure 5.1.1.7: Cross-classifying the least delicate choices of engagement and the entity groups in the AGAINST subcorpus: the plot shows that a cluster involving coupling monoglossic choices with evaluations towards terrorists and heteroglossic choices with evaluations towards the U.S. entity groups is significant in this subcorpus. The statistical significance of this cluster indicates that a main rhetorical strategy for arguing against the killing involves i) construing the AGAINST writers as in complete disalignment with terrorists and establishing strong rapport with the anti-terrorism community (through high propositional commitment towards the negative evaluations of terrorists) and ii) lessening the risks of solidarity with a majority of nationalists (by assigning low degrees of propositional commitment to the negative evaluations of the U.S).

As far as writer-reader relationships are concerned, there seems, then, to be a correlation between attitudinal and propositional commitments associated with this rhetorical motif (i.e. condemning the terrorists and denouncing the U.S.) as compared to the inverse correlation discussed in the previous subsection. That is, the enactment of negative attitudes towards terrorists with high degrees of both attitudinal and propositional commitment substantially limits both i) the ‘interpretative freedom’ of the construed readers in decoding these negative values (i.e. terrorists can only but be
evaluated negatively), and ii) the dialogic space for alternative viewpoints towards these entities (i.e. possible positive views towards terrorism are completely averted, with no possibility of tolerance). This functions, rhetorically, to establish strong bonding with anti-terrorism communities; this construes the writers, though they are against the killing of bin Laden, as sharing these anti-terrorism values with a potential majority of readers. Coupling negative evaluations of the U.S. entity group with low degrees of both attitudinal and propositional commitments, on the other hand, invites (though to varying degrees) alternative interpretations of the implicit negative values advanced by the texts, and acknowledges the existence of alternative viewpoints. This should reduce the threat to solidarity with actual readers (including nationalists and patriotists) who do not subscribe to the authorial negative stance towards the U.S and its institutions. This kind of interaction between ‘propositional’ and ‘attitudinal’ commitment with respect to terrorists and the U.S. is illustrated topologically in Figure 5.1.1.8 below. In the following subsection, commitment will be looked at from the perspective of individuation, affiliation, bond communities and social identity.
Figure 5.1.1.8: A topological perspective on the correlation between propositional and attitudinal commitment to the evaluations of terrorists and the U.S. This diagram shows that both types of commitment work synergistically. By associating low attitudinal and propositional commitment with negative attitudes towards the U.S., the authors attempt to maintain solidarity with a community of hawks and patriotists. On the other hand, by expressing high attitudinal and propositional commitment towards bin Laden and Al-Qaeda, they create strong bonds with a global anti-terrorism community, conveying the message that ‘arguing against killing bin Laden does not mean sympathize with terrorists’.

5.1.2 Construction of the humanist voice in the AGAINST subcorpus: syndromes, bonding, affiliation and individuation

In order to theorize the rhetorical motifs discussed in the previous two subsections in terms of the cline of instantiation (discussed in section 2.1.1.2 above), the notion of ‘syndrome’, proposed by Zappavigna et al. (2008), proves useful. A ‘syndrome’ is defined as “the recurrent co-instantiation of patterns of linguistic potential” that “co-construe more complex meanings” (pp. 169-175). In the AGAINST subcorpus, the

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118 Topological diagrams are created manually for summary and comparison purposes.
rhetorical argumentation against the killing can be perceived as enacted or manifested through two key syndromes of meaning. The first syndrome involves a cluster of couplings expressing condemnation of the killing operation and advocacy of laws that protect human rights. The second syndrome involves a cluster of couplings expressing the denunciation of those violating humanitarian laws (including bin Laden and the U.S. government). From a ‘realizational’ perspective, these syndromes are realized in the discourse semantics by the inter- and intra-systemic couplings (of first-order such as negative γ the U.S, and higher-order e.g. negative γ monoglossic γ bin Laden). From an instantiation perspective, these two syndromes identify, characterize and ‘realize’ a humanist voice (or sub-voice) constructed through sub-selections from the overall range of possible selections available for the ‘commentator’ voice. As mentioned earlier, at the level of the whole BLK corpus, the commentator voice is characteristically (and statistically) evident through frequent APPRAISAL features such as negative inscriptions of social-sanction and monoglossic judgment (see Appendix IV), while APPRAISAL choices and co-choices enacting sub-voices (e.g. humanist, apologist etc.) are obscured. It is not until we move down the scale of instantiation towards smaller groups of texts or subcorpora, that these sub-voices become more discernible. The humanist sub-voice and its associated syndromes in the AGAINST subcorpus are diagrammatically illustrated from the perspective of instantiation in Figure 5.1.2.1.
From an individuation perspective, this thesis, as discussed in section 2.1.1.7, adopts the model of bonds, bond networks and affiliation proposed by Knight (2010a, 2010b). In terms of this model, each coupling involved in the ‘humanist’ syndromes construes a social bond—a social semiotic construct of the ‘humanist’ identity. Assuming an ‘idealized’ compliant reader, this results in four main bonds: ‘condemnation of the killing’, ‘advocacy of capture and trial’, ‘demonization of bin Laden and Al-Qaeda’, and ‘denunciation of the U.S. government for the killing’. These four bonds interconnect with other possible bonds to form, along the cline of individuation, a social semiotic ‘bond network’ which identifies the writers as members of a humanist community against the summary killing of bin Laden. The ‘humanist against the killing’ bond network is, in return, connected to a larger, higher-level bond network representing a ‘humanist’ sub-culture in which more general bonds (e.g. advocacy of human rights or condemnation of violence) are shared. Bonds in this
broader ‘humanist’ sub-culture are connected to ‘master’ ideological networks—
higher-level bond networks that are “distinguished by major bond oppositions such as
‘male’ and ‘female’ bonds” (Knight, 2010a:239). Across each bond network (and, thus,
each point on the cline of individuation), the ‘humanist’ social identity undergoes
different levels of abstraction: writers as members of ‘humanists against the killing’
community at lower-level bond networks, writers as members of ‘humanist’
subculture, writers as members of western culture, and writers as members of humanity
at higher-level networks. These humanist bond networks along the cline of
individuation are illustrated diagrammatically in Figure 5.1.2.2 below.
Figure 5.1.2: Bond networks of the ‘humanist’ identity in the AGAINST subcorpus from an individuation/affiliation perspective.

In this figure, black lines connecting the four bonds (in colour) in the ‘humanist against the killing’ network simulate communing affiliation between members in this community, distinguishing them from opposing communities mainly those supporting
and approving the killing. The dotted grey lines connect bonds shared by a community
to a higher-level bond network representing a relevant sub-culture. For instance, the
bond Advocate Capture (in green) in the ‘humanist against the killing’ community is
connected to a higher-level bond in the ‘humanist’ sub-culture, emphasizing that this
bond is socially and ideologically ‘derived’, so to speak, from a broader bond of
‘Advocating International Humanitarian Laws (IHL)’ (which is expected to be shared
among all humanists, as alluded by e.g. Carey et al., 2005 and Herczegh, 1988). This
relationship between community bonds and sub-culture ones can be aligned with the
relationship between sub-potential and text type on the cline of instantiation, which is,
in other words, “a cline of specificity” (Martin, 2008:53). That is, as we move down
the cline in Figure 5.1.2.2, values and bonds from sub-cultural networks are further
‘specified’ (from an instantiation point of view) and re-constructed in the community
networks, e.g. from advocating humanitarian laws in general in the humanism
subculture, to specifically advocating the capture of bin Laden as a special case of IHL
(in the ‘humanist against the killing’ community).

It is important to note here that Knight’s (2010a; 2010b) model does not
explicitly include sub-culture bond networks¹¹⁹ (i.e. networks equivalent to humanism,
nationalism and so on). In this thesis, the addition of these higher-level subcultural
networks between community and ‘master’ ideological networks is necessary for three
reasons. First, it illustrates how ‘allocation’ (Martin et al., 2013) and ‘affiliation’ work
in a complementary way in the BLK corpus; subcultural bonds ‘allocate’ the potential
community bonds (i.e. individualized repertoires), while, simultaneously, community
bonds make it possible to affiliate with a given subculture. For example, the
subcultural bonds ‘promote IHL’, ‘condemn violations and violators of human rights’
etc. in the humanism subculture do not only enable enactment of a ‘humanist’ identity
but also provides the cultural resources to construct a community of ‘humanist against
killing bin Laden’ through bonds like ‘Condemning Killing’ and ‘Denounce U.S.’.
These latter bonds, in return, do not only construct a ‘humanist against the killing’ sub-
identity but also enable affiliation with both other in-group members and a larger
community of humanists. Second, it explains why a community bond is shared (or at

¹¹⁹ In Knight’s model, community bond networks and sub-cultural networks are combined in one layer (see e.g. Knight, 2010a:58).
This treatment, however, makes it difficult identify communities sharing the core bonds of a given sub-culture. For example, using
one layer, it will be difficult to distinguish between an actual community of ‘humanists against the killing’ and a possible one of
‘humanists for the killing’. Both communities share the core cultural bonds of ‘promoting human rights and the rule of law’.
least expected to be shared) within an in-group by identifying the more general sub-cultural bond it is ‘inherited’ or ‘derived’ from. For instance, the ‘condemn violations of human rights’ subcultural bond is a ‘defining’ bond of humanism around which communities and sub-communities of humanists (e.g. humanists against killing bin Laden, humanists against abortion, humanists against capital punishment) are constructed and from which bonds of condemning a specific case of violations (e.g. killing bin Laden, killing babies) are culturally derived. Third, it explains how an individual actually ‘individuates’ through different social levels of ‘identity abstraction’ (Tajfel, 1982; Turner, 1987). For instance, the ‘Denounce U.S.’ and ‘Demonize bin Laden’ bonds in Figure 5.1.2 identifies an AGAINST writer beyond their individual and personal identity as a ‘humanist’ against killing bin Laden without a proper trial. The ‘condemn violations of human rights’ and similar bonds in the subculture network further abstract this identity as a ‘humanist’ against killing a person without a proper trial. That is, without the subculture network of bonds, there seems to be a gap in this abstraction process, namely between the AGAINST writer as a humanist against the killing and the AGAINST writer as e.g. male, middle-class, white etc.

Red curves in the figure represents disaffiliations between the FOR and AGAINST communities caused by the bonds construed in the AGAINST subcorpus. For those approving the killing, the ‘Advocate Capture’, ‘Denounce U.S.’ and ‘Condemn Killing’ bonds are threatening, offensive bonds and, thus, unshared ‘inter-communally’. Furthermore, the discussion in the previous subsections shows that the AGAINST bonds are construed, through co-selections of ENGAGEMENT and DEGREE OF EXPLICITNESS, with varying degrees of propositional and attitudinal commitments as summarized in Figure 5.1.2.3 below. For the sake of simple presentation, these degrees of commitment are ‘dichotomized’ into maximum/minimum and indicated by negated (stands for maximum) and non-negated (stands for minimum) ‘arrow heads’ in Figure 5.1.2.2. For instance, as the bond ‘Advocate Capture’ is associated with maximum attitudinal commitment (i.e. inscribed) and minimum propositional commitment (i.e. heteroglossic), its connection to the ‘approving the killing’ communities is accompanied by a negated white arrow and non-negated black arrow, respectively.
The various degrees of commitment associated with these bonds imply that ‘disaffiliation’ and ‘affiliation’ is not a matter of ON and OFF, but rather an ‘analogue’ continuum involving various degrees of bonding negotiation, re-negotiation, acceptance and rejection. In other words, the extent to which a bond is negotiated, accepted or rejected seems to be ‘regulated’ by the extent of attitudinal and propositional commitments associated with it. To put it simply, low attitudinal commitment increases the negotiability of a bond by allowing more freedom in interpreting its value and thus more “…freedom…in aligning with the values naturalised by the text” (Martin & White, 2005:67). Low propositional commitment increases the negotiability of a bond by ‘authorially’ admitting and recognizing its
problematicity, at least, for ‘out-group’ members. Conversely, maximum attitudinal and propositional commitment restricts the interpretability (i.e. only one interpretation is offered) of the bond, and repudiates its problematic and controversial status, rendering it less negotiable.

As far as enactment of ‘humanist’ identity in the AGAINST subcorpus and relationship between the AGAINST community and ‘others’ are concerned, both the negotiability and interpretability of a bond (as manifested by the two kinds of commitment) might be described from two perspectives: ‘intra-communal negotiability’ and ‘out-group’ solidarity. In terms of intra-communal negotiability, assignment of low degrees of commitment to a bond seems to affect the bond ‘coreness’ in the community, making it more negotiable within the community itself as well as across communities. In terms of ‘out-group’ solidarity, associating a bond with low commitment seems to reduce its threatening or offensive qualities, reducing risks to solidarity with other ‘opposing’ communities as discussed earlier. High degrees of commitment produce the opposite effect; i.e. strengthening the coreness of a bond and preserving its offensiveness to opposing communities. Accordingly, how far a bond becomes intra-communally more negotiable or inter-communally less threatening apparently depends on: i) the kind of interaction between attitudinal and propositional commitment (i.e. in an ‘inverse’ correlation, the two types of commitment work against each other to balance the resulting effect; whereas in a correlative interaction, the two commitments work with each other to intensify the overall ‘authorial’ commitment), and ii) the kind of sub-choices within ENGAGEMENT and EXPLICITNESS (e.g. disclaim is more propositionally committed than entertain; flagging is more attitudinally committed than affording). The relationship between ‘humanist against the killing’ bonds and the degrees of commitment can then be illustrated topologically using a two-dimensional diagram as in Figure 5.1.2.4.
Figure 5.1.2.4: Re-interpretation of attitudinal and propositional commitments in terms of ‘negotiability’ of the bond within a community, and solidarity with out-group and other communities. Maximum attitudinal and propositional commitments decrease the negotiability of a bond and pose high risk to solidarity with out-groups, and vice versa.

In this diagram, the ‘Condemn Killing’ and ‘Advocate Capture’ bonds are located at the same position, since both are associated with either low attitudinal commitment and high propositional one, or high attitudinal and low propositional. This results in commitment ‘equilibrium’, so to speak, rendering these two bonds less threatening to other communities around the killing (particularly the ‘for the killing’ out-group) and moderately negotiable within the community against the killing. The ‘Denounce U.S.’ bond is the least threatening and most negotiable as it is construed with low attitudinal and propositional commitments. The ‘Demonize bin Laden’ bond, by contrast, is the most threatening and least negotiable bond in the ‘humanist against the killing’ network as it is associated with both high attitudinal and propositional
commitment. It should be noted, however, that the ‘out-group’ being disaffiliated with through this bond is a community involving terrorists and pro-terrorists and the ‘in-group’ to which the writers socially identifies as being members is a community of anti-terrorism. This kind of bond will be referred to as ‘bridging’ or ‘mediating’\(^\text{120}\). The bridging bond ‘Demonize bin Laden’ is deployed in both AGAINST and FOR subcorpora as part of the rhetoric to argue for or against the killing. Nonetheless, while the FOR writer use it to justify the killing (as shown in Appendix I, section I.1.2), the AGAINST writer use it to identify themselves as members of a potentially ‘neutral’ community of anti-terrorism (the green community in Figure 5.1.2). Tactically, this bond is meant to ‘bridge’ or ‘mediate’ affiliations with communities approving the killing, establishing solidarity with them by providing some shared values. Rhetorically, this bond functions to confute the assumption that ‘disapproval of the killing, ipso facto, means sympathy with terrorism’.

In AppAnn, bridging bonds can be detected by various visualization techniques. For instance, using AppAnn CrA plots, the bridging bond ‘Demonize bin Laden’ is visualized in Figure 5.1.2.5 below. Here, the cube (circled in blue) representing the coupling (negative γ bin Laden) which construes this bond is located nearly at the middle between the FOR and AGAINST spheres (in red rectangles). This indicates that this coupling (and thus this bond) is equally associated (statistically) with both subcorpora. Another example involves deploying AppAnn Attitude Flares. Although this technique is dynamic and specifically tailored to the visualization of APPRAISAL as a text unfolds logogenetically, in its cumulative mode (see section 4.2.7), it can provide synoptic views on attitude γ ideation couplings, and, thus, social bonds construed in texts. Figure 5.1.2.6, for instance, shows two Attitude Flares visualizations: one of the Guardian column (against the killing), another of the USA Today editorial (for the killing). It can be seen that the bin Laden entity’s spheres (marked by white arrows) in both texts are surrounded by nearly the same pattern of red flares. This indicates that this entity is coupled with negative evaluations (red flares) of similar sources of ATTITUDE (namely the author/writer of the text), which also indicates that the bond construed by this coupling is shared by the two texts. Other entities show divergent patterns of flares, e.g. different sources of flares, different

\(^{120}\) As this kind of bonds function rhetorically to enact a ‘neutral’ identity with respect to the killing, they might be called ‘neutralizing’ bonds.
colour combinations and so on, indicating unique (unshared) bonds between the two texts (more on bonds in Attitude Flares will be given in the following section).

Figure 5.1.2: Cross-classifying negative and positive evaluations towards entities in the BLK corpus and the two subcorpora: the plot shows that couplings realizing ‘bridging bonds’ (e.g. demonize bin Laden) will be positioned at a middle point between the spheres representing subcorpora.

Figure 5.1.6: AppAnn Attitude Flares of two BLK texts: the Flares illustrate that ‘bridging bonds’ are visually distinguishable as the ideational entities forming a bridging bond will show, across texts, similar ‘flares’ patterns (i.e. similar colour hues, intensities, sources of ‘flares’ and so on). Here, the ‘Demonize bin Laden’ bridging bond (marked by arrows) shows the same pattern of flares in both texts (red flares encoding negative attitudes, same flares intensities, author/writer as source of flares etc.).
5.2 Dynamic Patterns: the logogenesis of identity and the logogenetic life of bonds in the AGAINST subcorpus

The previous section provided a synoptic view on the humanist identity the AGAINST writers attempt to enact in their argument against the killing. Couplings of APPRAISAL and IDEATION are explored from an intermediate point between the system and text poles (or between the climate and weather to use Halliday’s metaphor), and the aim was to identify the principal bonds around which communities against the killing are constructed and through which individual writers belong, affiliate and disaffiliate. However, needless to say, the process of identity construction is emergent and discursive (Hardy & Phillips, 1999; du Gay, 1996; Burman & Parker, 1993; Oktar, 2001; Achugar, 2004; Omoniyi & White, 2006), and affiliation and communal belonging is a dynamic process “played out as texts unfold in the myriad of discourses materializing the communion of everyday and institutional life” (Martin, 2004a:337). Bonds are negotiated through the logogenesis of text as writers “constantly negotiate couplings in relation to their varying affiliations as community members” (Knight, 2010:205). In this section, we move down the cline of instantiation to the text pole in order to explore how identities in the AGAINST subcorpus are constructed, enacted, ascribed, shifted towards and shifted from as texts unfold – exploring in some detail how bonds identifying the AGAINST communities evolve, culminate and decay as APPRAISAL and IDEATION features couple and decouple over text (logogenetic) time.

This section begins with a look into identities, affiliation and bonds vis-à-vis the schematic structure of texts, aiming to discern i) how each generic stage contributes to the construction of ‘humanist’ identity, ii) how bonds in a given generic stage are negotiated and confirmed or rejected and condemned, iii) how APPRAISAL and IDEATION couple to signal, through the construal of a bond (assuming a compliant reader), a shift in or establishment of an identity, and iv) how logical meanings realized in internal conjunction organize the negotiation of bonds and scaffold shifts and evolution of different authorial identities.

Next, the focus is shifted to the logogenetic patterns associated with a certain bond as it ‘crescendos’ and ‘diminuendos’ from one phase of the text to another. The objective here, in other words, is to visualize the logogenetic ‘life’ of a bond as it shapes, within an ‘idealized’ community bond network, a particular authorial identity.
The section is then concluded with an exploration of the ‘dynamics’ of affiliation and disaffiliation, focusing on the rhetorical role of attitudinal and propositional commitment in ‘regulating’ and ‘orchestrating’ intra-communal belonging and inter-communal negotiation of bonds and values as text unfolds. AppAnn visualization techniques (detailed in Chapter 4) will be deployed to support observations, detect salient patterns and confirm conclusions.

5.2.1 Logogenetic construction of humanist identity in the AGAINST subcorpus

In Appendix II (section II.2.1), the analysis of generic structures shows that the AGAINST subcorpus consists of three media expositions (namely the USA Today column, the Guardian column and the Daily Telegraph column) and one media challenge (the Gazette editorial) (see section 3.3.2 for more about the genre analysis carried out in this thesis). As discussed in section 3.1.3, a media exposition exhibits the schematic structure Headline ^ (Orientation) ^ Thesis ^ Argument(s) ^ Reiteration of Thesis, whereas a media challenge shows the structure Headline ^ (Orientation) ^ Position Challenged ^ Rebuttal(s) ^ Anti-Thesis. From individuation and affiliation perspectives, these generic stages in the AGAINST articles can be re-interpreted as follows:

1) Constructing a ‘humanist’ identity and establishing a ‘humanists against the killing’ community in the Headline stage,
2) Recognizing a ‘for the killing’ community in the Orientation stage,
3) Setting communal boundaries and affirming communal belonging in the Thesis and Position Challenged stages,
4) Justifying belonging to the ‘against the killing’ community in the Arguments and Rebuttals stages, and finally

This subsection discusses how this ‘affiliation macro-sequence’, so to speak, is construed by micro-sequences of accepted and rejected bonds, which are, in return, construed by sequences of evaluative couplings. Here, AppAnn DAR (detailed in section 4.2.6) and Flares (discussed in section 4.2.7) visualization techniques will be
shown to be particularly useful in signalling the logogenetic formation of **APPRaisal γ IDEATION** couplings and construal of bonds and, thus, in foregrounding the logogenetic construction of identities, ‘against and for’ communities and ‘sequences’ of affiliation and belonging.

### 5.2.1.1 Establishing a ‘humanist against the killing’ community

To begin, the *Headline* stage in the four AGAINST articles seem to serve, from an individuation/affiliation perspective, the function of establishing a ‘humanist against the killing’ community through the initial construal of one or more of the four humanist bonds ‘**Advocate Capture**’, ‘**Denounce U.S.**’, ‘**Condemn Killing**’, and ‘**Demonize bin Laden/Al-Qaeda**’. To illustrate this, the *Headlines* of the AGAINST articles are given below:

- **How Osama bin Laden perverted US justice** (Guardian column)
- **Osama bin Laden’s death was murder, plain and simple** (Gazette editorial)
- **Opposing view: ’He should have been taken alive’** (USA Today column)
- **Let’s be clear: Osama bin Laden was executed and for good reason** (Daily Telegraph column)

In the *Guardian* column’s *headline*, the bonds ‘**Denounce U.S.**’ and ‘**Demonize bin Laden**’ are construed implicitly through coupling negative judgment with the entities *bin Laden* and *U.S.*; bin Laden is presented as the ‘perverter’ of the justice system in the U.S. which is, in return, implied to be ‘pervertable’. The *Gazette* editorial’s and *Daily Telegraph* column’s *headlines* construe the bonds ‘**Condemn Killing**’ and ‘**Denounce U.S.**’ through describing bin Laden’s death as a murder or execution which also implicates the U.S. as a ‘murderer’ or ‘executor’.

The *USA Today*’s *headline* expresses an implicit positive evaluation of the capturing as the writer proposes ‘what should have been done’ instead of the killing. Here, the coupling of positivity and the ‘capture alive’ entity construes the ‘**Advocate Capture**’ bond. These initial bonds

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121 It should be noted here that the word ‘executed’ (as opposed to e.g. ‘murder’) can be used to legally sanction the killing, and thus can be read as positive evaluation of the killing. However, it is interpreted here as a negative evaluation of the killing for three interrelated reasons. First, as the main identity enacted in the text is ‘humanist’, humanism is well known for its opposition to capital punishment and death penalty (see e.g. Bulger, 2012). Second, the negative prosody of the paragraphs following the headline suggests a negative reading of ‘executed’ and similar words. Third, it seems that the writer’s use of ‘execute’ deliberately intends to invoke negative evaluations as in e.g. ‘stop pussy-footing…and accept this was an execution’.
construct, at the beginning of each article, a humanist identity, and signal the existence of a ‘humanists against the killing’ community.

Interestingly, the Daily Telegraph headline also construes, through the coupling of positive appreciation and the killing entity (in ‘executed and for good reason’), the bond ‘Condone Killing’ which is, as discussed earlier, a characteristic bond in the ‘U.S. apologist for the killing’ community network (see Appendix I, section I.1.2). A possible function of this bond is not only to acknowledge the existence of this community but also to scaffold, through coupling ‘Condone Killing’ and high level periodicity (see section 2.1.2.1), readers’ prediction of the ‘unusual’ generic structure of the text. As shown in Appendix II (section II.2.1) and discussed later, this article, though showing a media exposition structure (e.g. Thesis and Arguments), involves late stages of Alternative Position and Alternative Arguments, resembling, to a great extent, the media discussion text-type. The ‘Condone Killing’ bond in the Headline (a stage may also ‘textually’ function as a macro-Theme) adjusts our expectations of what is coming next by signalling the existence of these stages. This is one example of how bonds interact with periodicity and genre in the BLK subcorpus.

These initial bonds in the headlines are visualized in the four AppAnn Flares in Figure 5.2.1.1. In the USA Today column’s Flares, the blue flare around the law, justice, evidence sphere represents the coupling positive $\gamma$ capture that construes the bond ‘Advocate Capture’. In the Guardian column’s Flares, red flares around bin Laden and U.S. spheres visually encode the evaluative couplings negative $\gamma$ bin Laden and negative $\gamma$ U.S. that realize the bonds ‘Demonize bin Laden’ and ‘Denounce U.S.’, respectively. The Daily Telegraph’s Flares show two couplings in this stage: negative $\gamma$ killing and negative $\gamma$ U.S. as indicated, respectively, by the red flare around bin Laden’s killing sphere and the red flare around the U.S. sphere. Further, the visualization also shows the coupling positive $\gamma$ killing that construes the apologist’s bond ‘Condone Killing’ as discussed earlier. Finally, red flares around the bin Laden and U.S. spheres in the Gazette editorial’s visualization encode the bonds ‘Demonize bin Laden’ and ‘Denounce U.S.’. Interestingly here are the blue flares attached to the semiotic entities

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122 I leave further exploration of interactions between bonds and periodicity to future work as will be discussed in the following chapter.
sphere which encode the coupling positive semiotic entities (realized by the two adjectives plain and simple in the Gazette’s headline). This coupling construes what can be referred to as a ‘meta-bond’: a bond that is not as central (as e.g. ‘Condemn Killing’ or ‘Denounce U.S.) in defining, establishing and identifying a community but deployed by the author to emphasize the centrality of a major community bond. In the Gazette’s headline, appreciation instances (plain and simple) seem to positively evaluate the writer’s statement that the killing was murder, and, thus, emphasizing the bond ‘Condemn Killing’ construed in this statement (more on these meta-bonds later).
Figure 5.2.1.1: Flares (partial) visualizations of the four AGAINST articles at the Headline logogenetic moment: patterns of flares around entity spheres encode the evaluative couplings positive $\gamma$ capture in the USA Today column’s, negative $\gamma$ bin Laden and U.S. in the Guardian column’s, negative $\gamma$ killing and U.S. and positive $\gamma$ killing in the Daily Telegraph’s, and negative $\gamma$ bin Laden and U.S. and positive $\gamma$ semiotic in the Gazette’s. These couplings indicate the bonds that function to initially construct a humanist identity and establish a community of humanists against the killing, e.g. ‘Advocate Capture’ in the USA Today column’s headline and ‘Denounce U.S.’ and ‘Demonize bin Laden’ in the Guardian’s headline.
5.2.1.2 Recognizing ‘for the killing’ and out-group communities

Following the Headline, the Orientation, as discussed in section 3.1.3 above, is an optional stage providing background information on the issue. In the AGAINST subcorpus, this stage is present in three articles: the Guardian column, the Daily Telegraph column, and the Gazette editorial. In these articles, the Orientation seems to serve not only the ‘ideational’ function of providing background information about the killing incident but also of, from an affiliation perspective, acknowledging the existence of an out-group opposing the killing. This is achieved through bonds that are characteristic to the ‘for the killing’ communities such as ‘Condone Killing’ and ‘Praise U.S.’ (see Appendix I). For instance, in the Guardian column’s Orientation below, the author describes the killing as the end of one of the United States most gruelling issues and as an improvement to global security.

Osama bin Laden’s death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade. And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered.

These positive consequences of the killing are realized by the evaluative couplings positive殺害 and negative殺害 bin Laden (expressed in the underlined lexis), which construe two central bonds (‘Condone Killing’ and ‘Demonize bin Laden’) that identify the ‘apologists for the killing’ community (as discussed in Appendix I, section I.1.2). The author here constructs and adopts an apologist identity in order to notify the readers early in the text that there exists a ‘for the killing’ community gathering around these two bonds. This adoption of apologist identity, nonetheless, is temporary as the apologist bonds will be rejected in the following stages. Similarly, in the Gazette editorial’s Orientation below, the writer recognizes that the killing was received with public rejoicing.

On Sunday, U.S. President Barack Obama announced that U.S. Navy SEALs had killed Osama bin Laden, and Americans rejoiced.

The underlined non-authorial (observed) affect construes the apologist bond ‘Condone Killing’ through appeal to public opinion (argumentum ad populum). Again, the purpose here seems to be to apprise readers of the existence of an apologist community condoning the killing.
The Orientation stage in the Daily Telegraph column starts with a long ironic recount of what might have happened during the killing incident followed by the White House’s justification of the killing that bin Laden committed a ‘hostile act’, as illustrated in:

_Yup, it was Osama bin Laden’s “hostile act” of bullet-dodging that cost him his life, says the White House._

Deploying what van Dijk (2008:362) calls ‘semantic reversal of blame’, the White House holds bin Laden responsible for his death due to his attempt to resist the SEALs. The underlined attributed expression realizes the coupling _negative_ \( \gamma \) _bin Laden_ which construes the bond ‘Demonize bin Laden’. The U.S. government, through this bond, is positioned as an ‘apologist for the killing’ identity through which the writer acquaints us, as readers, with a community of apologists for the killing.

These out-group community bonds in the Orientation stages of the three AGAINST articles are visualized by AppAnn Flares in Figure 5.2.1.2. Flares at this stage encode the apologist bonds ‘Condone Killing’ and ‘Demonize bin Laden’ as indicated by red flares around bin Laden sphere (in all texts) and blue flares around the killing sphere (in Guardian and Gazette articles). Interestingly, the Daily Telegraph’s Flares also shows two bonds. The first bond is construed by the evaluative coupling _negative_ \( \gamma \) _you/reader_ as encoded by the red flares around you/reader sphere. Examples of this coupling in this stage mainly involve negative affect (in/security) where the Emoter is ‘you as reader’ and the Trigger is the Navy SEALs, as in e.g. _you may gawp in horror as a bullet whangs…, if you are so rash as to duck back into your bedroom_.

The second bond is a meta-bond construed by the coupling _positive_ \( \gamma \) _semiotic_ (encoded by blue flares around the semiotic sphere) as in e.g. _we have all just learned some useful etiquette about how to greet the U.S. Navy Seals_. As these couplings occur within a sarcastic context, they are clearly not intended to affiliate with the Navy SEALs but rather to construe meta-bonds whose main affiliative function, as mentioned earlier, is apparently to emphasize central bonds such as ‘Denounce U.S.’ and ‘Condemn Killing’. Re-interpreting sarcasm in terms of interaction between meta-bonds and central bonds is a topic for future work.
Figure 5.2.1: Flares visualizations of the four AGAINST articles at the Orientation logogenetic moment: patterns of flares around entity spheres encode the evaluative couplings negative γ bin Laden and positive γ killing in the Guardian column’s, positive γ killing the Gazette editorial’s; and negative γ bin Laden in the Daily Telegraph’s. These couplings construe the apologist bonds ‘Demonize bin Laden’ and ‘Condone Killing’ that ‘affilatively’ function to ascribe out-group an apologist identity and acknowledge the existence of ‘apologists for the killing’ community.
5.2.1.3 Setting communal boundaries and affirming belonging to ‘humanists against the killing’ community

Once a ‘humanists against the killing’ community is established through humanist bonds in the Headline and we, readers, are notified of the existence of the ‘against the killing’ communities through apologist bonds in the Orientation, the Thesis and Position Challenged stages seem to serve a key affiliative function of setting the boundaries of ‘humanists against the killing’ community and affirming authorial belonging to this community. This is achieved by explicitly rejecting the ‘for the killing’ bonds and articulating authorial acceptance of the ‘humanists against the killing’ bonds. For example, in the Daily Telegraph column’s Thesis below, the writer explicitly rejects the apologist bond ‘Condone Killing’ construed in the Orientation stage by describing it as ‘embarrassing’; and presenting the counter-bond of ‘Denounce U.S.’ expressed in ‘starting to get embarrassing’.

As an explanation for killing an unarmed man, this is starting to get embarrassing. [In fact,] I am reminded of the old South African police force, who used to explain deaths in custody by saying that their unarmed black detainees had launched savage attacks with their left temples and the smalls of their backs on the steel toe caps of their guards. So why don’t we all just cut the cackle and admit the groaningly obvious.

Afterwards, the central bond ‘Condemn Killing’ is re-stated with an authorial invitation to accept it: ‘…cut the cackle and admit the groaningly obvious’. Schematically, this stage seems to consist of two phases: one negatively evaluates the U.S. and the other negatively evaluates the killing. Affiliatively, these two phases can be modelled as a three-fold ‘sequence of bond negotiation’: reject ‘Condone Killing’ → propose ‘Denounce U.S.’ → accept ‘Condemn Killing’. The rejection of the out-group bond ‘Condone Killing’ is construed through explicit negative evaluation ‘starting to get embarrassing’. The proposal of ‘Denounce U.S.’ is made through invoked negative evaluations of the South African police which also invokes negative evaluations of the U.S. ‘I am reminded of the old South…’. The authorial acceptance of the ‘Condemn Killing’ bond is achieved through pronounced engagement ‘admit the groaningly obvious’ associated with the negative evaluations of the killing. Overall, the function of this negotiation sequence can be said to set the boundaries between the ‘against’ in-group and the ‘for’ out-group communities and, thus, to identify the author as a member of the ‘against’ one. It should be noted here that this tripartite sequence is analogous to Bolívar’s (1984, 1994, 2001) triad, discussed previously in section 3.1.2. In fact, the three phases
(reject → propose → accept) can be seen as a re-interpretation of the Lead → Follow → Valuate, from an affiliation perspective.

Furthermore, it is important to note the role of internal conjunction here (conjunction is reviewed in section 2.1.2.3). As discussed in section 3.2.2 above, English newspaper editorials and op-eds, in general, show a strong preference for the use of adversatives (e.g. however, but) as English editors and columnists tend to organize their arguments non-linearly (Aertselaer & Dafouz-Milne, 2008; Dafouz-Milne, 2008). The overall frequencies of internal conjunction in the BLK corpus also show a tendency to organize the arguments for and against the killing by means of comparison (e.g. that is, in fact) and consequences (e.g. however, but, so), as detailed in Appendix III (section III.2). Nonetheless, if we attend to these two subtypes of internal conjunction from a logogenetic perspective, we can identify their role in organizing in-group and out-group bonds, and, thus, in organizing the process of negotiating these bonds. In the *Daily Telegraph’s Thesis* stage, it can be seen that the rejection of the apologist bond ‘Condone Killing’ is scaffolded by an implicit comparison ‘in fact’, as the author compares the U.S. justification of the killing with the one given by the old South African police. By contrast, the acceptance of the humanist bond ‘Condemn Killing’ is scaffolded by an explicit consequence conjunction ‘So’. That is, the transition from the first affiliative phase (reject ‘Condone Killing’) to the second (propose ‘Denounce U.S.’) is logically mediated by comparison conjunction whereas the transition from the second to the third (accept ‘Condemn Killing’) is mediated by consequence conjunction. Interestingly, a similar pattern can be observed in the *Thesis* stage of the *Guardian* column given below:

…”removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the ‘war on terror’. [That is] It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice.

[In particular] At the heart of the rhetoric justifying and explaining our policies has been the notion of justice …. What we need to remember, though, is that the effect of bin Laden’s reign of terror on the notion of justice was to pervert it.

Here, the apologist bonds ‘Condone Killing’ construed by the couplings positive affect γ killing and negative γ bin Laden in the *Orientation* stage are rejected. This rejection is

123 For more on this bond, see Appendix I, section I.1.2.
further elaborated on through comparison conjunction as the writer proposes the humanist bonds ‘Denounce U.S.’ construed in the evaluative coupling *negative* \( \gamma \) U.S. (e.g. *American version of the “war on terror”... when it came to think about justice*). Next, the bond ‘Condemn Killing’ is construed through the implicit evaluative coupling *negative* \( \gamma \) killing (in *effect...notion of justice was to pervert it*), with an authorial request to accept this bond (*we need to remember*). Again, internal conjunction plays an important role in the formation of the bond negotiation sequence: reject ‘Condone Killing’ \( \rightarrow \) propose ‘Denounce U.S.’ \( \rightarrow \) accept ‘Condemn Killing’, as implicit internal comparison (‘that is; in other words’) scaffolds the transition from the first affiliative phase to the second, and explicit internal consequence (‘though’) scaffolds the transition from the second to the third. This pattern of sequencing the negotiation of bonds in order to define boundaries of the ‘humanists against the killing’ and affirm communal belonging in the *Thesis/Position Challenged* stage is illustrated in Figure 5.2.1.3 below.

![Diagram: Sequencing negotiation of bonds in the Thesis/Position Challenged stages of the AGAINST articles](image)

The logogenetic process of sequencing negotiation of bonds in AGAINST *Thesis* stages and the role of internal conjunction in this process can be visualized using AppAnn DARs (detailed in section 4.2.6) as shown in Figure 5.2.1.4. AppAnn DAR is used here instead of Flares since it provides better views on sequencing and conjunction. (For the sake of brevity, only one text is considered here). At the
beginning of the Thesis stage, the DAR shows three couplings: negative γ U.S., negative γ killing and negative γ other entities, visually encoded by red discs enclosing green (U.S.), blue (killing) and white (other entities) discs. The bonds (e.g. ‘Denounce U.S.’) construed by these couplings are, afterwards, elaborated on, through comparison conjunction (encoded by yellow arrow), by the bond ‘Condemn old South African police’ as indicated by the coupling negative γ old South African police (encoded by red discs enclosing white ones in clause [26]). The function of this latter bond in the affiliation process is to ‘propose’ and emphasize the bond ‘Denounce U.S.’ by analogizing the U.S. Navy SEALs to old African police forces. The third phase of the previously discussed sequence is established by the two bond ‘Condemn Killing’ and ‘Denounce U.S.’ construed in the couplings negative γ killing and negative γ U.S. (as encoded by red discs enclosing blue and green ones in clause [27]). The logogenetic shift to this affiliation phase is scaffolded by consequence conjunction encoded in the red arrow linking clause [27] back to [24].

Figure 5.2.1.4: DAR visualization of the Thesis stage in the Daily Telegraph column showing the phases of the affiliation sequence that functions to set community boundaries and to affirm authorial belonging to the ‘humanists against the killing’ community.

5.2.1.4 Justifying belonging to the ‘humanists against the killing’ community
Once boundaries of the ‘humanists against the killing’ community are established, and membership and belonging to this community are affirmed in the Thesis/Position Challenged, bonds in the Argument/Rebuttal stages seem to function, from an affiliation perspective, to justify and rationalize this belonging. Here, the logogenetic
process of ‘justifying belonging’ seems to be dependent on (or sensitive to) text-type; i.e. whether the text is an exposition or a challenge (argumentative text types are discussed in section 3.1.3). In particular, justifying communal belonging in the Argument stages of AGAINST expositions is apparently achieved through rationalizing authorial acceptance of in-group ‘humanist’ bonds, whereas in the Rebuttal stages of the AGAINST challenge the process is seemingly dependent on rationalizing authorial rejection of out-group ‘apologists’ and ‘hawks’ bonds. This is illustrated in the following extracts from the Daily Telegraph column (exposition) and the Gazette editorial (challenge).

Daily Telegraph Column (Argument):

*It was 10 years ago this December, when the net was closing in on bin Laden in Tora Bora, that I wrote a pious piece in this very space, urging that the mass murderer should be put on trial… It may be painful and problematic, I argued, but that is the difference between them and us [That is] it's civilisation versus barbarism, the rule of law versus the law of the jungle. [That is] It's what we're fighting for.*

Gazette Editorial (Rebuttal):

*The U.S. is claiming it was a lawful act, but a closer look at the incident proves them wrong. [That is] The evidence so far indicates that the U.S. murdered Osama… [That is] The killing would be lawful if it occurred during an armed conflict and if bin Laden was a combatant taking part in the armed conflict… Although some people may argue that the killing took place as part of the "war on terror," terror is clearly not a state. And while the Navy SEALs are an armed group, it would be difficult to argue they were taking part in an internal armed conflict in Pakistan.*

In the *Daily Telegraph’s* Argument, the author explicitly states his acceptance of the in-group bond ‘Advocate Capture’ in ‘wrote a pious piece… urging that… put on trial’, and, thereby his belonging to a community against the killing. This acceptance is further emphasized by a meta-bond construed in the coupling positive \( \gamma \) semiotic in ‘wrote a pious piece’. Afterwards, the author justifies his belonging through another bond construed by the couplings positive \( \gamma \) we/us and negative \( \gamma \) them in e.g. civilization versus barbarism… rule of law versus law of the jungle… what we’re fighting for. Interestingly, this ‘justifying’ bond is a central one in the out-group ‘for the killing’ community ‘Praise U.S., Americans etc’ as discussed in Appendix I (section I.1.1). More interestingly, it is also preceded by admitting another out-group bond
‘Complicate Capture’ construed in the coupling negative \( \gamma \) capture in ‘painful and problematic’. That is, the rhetorical strategy for justifying the author’s belonging to ‘humanists against the killing’ involves revealing the ‘contradictory’ tension between two or more out-group central bonds; here between ‘seeing ourselves as good, capable and deserving of praise’ and ‘seeing the capture as hard and problematic’. This can also be modelled as a tripartite\(^{124}\) negotiation sequence: accept ‘Advocate Capture’ \( \rightarrow \) admit ‘Complicate Capture’ \( \rightarrow \) justify acceptance (or preference) of ‘Advocate Capture’. Authorial acceptance of ‘Advocate Capture’ is construed through inscribed positive evaluation of the capture ‘urging that…put on a trial’. Admitting the out-group bond ‘Complicate Capture’ is stated through entertained negative inscriptions of the capturing ‘may be painful and problematic’. Justifying acceptance of ‘Advocate Capture’ is construed by invoked positive evaluations of the laws and moral standards ‘it’s what we are fighting for’. Again, internal conjunction plays an important role in scaffolding transition from one ‘affiliative’ phase in the sequence to another: internal comparison to organize the transition from “accept ‘Advocate Capture’” to “admit ‘Complicate Capture’”, and internal consequence to scaffold the transition from “admit ‘Complicate Capture’” to “justify acceptance of ‘Advocate Capture’”.

By contrast, in the Gazette editorial’s Rebuttal the writer begins with an explicit rejection of the out-group ‘for the killing’ bond ‘Condone Killing’ construed in the coupling positive \( \gamma \) killing in ‘lawful act’, by stating his acceptance of the alternative in-group bonds ‘Condemn Killing’ and ‘Denounce U.S.’ construed in ‘the evidence so far indicates that the U.S. murdered Osama’. Afterwards, this rejection is justified through a number of meta-bonds construed in e.g. ‘terror is clearly not a state’ and ‘difficult to argue’ which are apparently meant to weaken the out-group ‘Condone Killing’ bond and fortify the in-group ‘Denounce U.S.’ bond. As an affiliation/disaffiliation sequence, these phases of negotiation can be represented as: reject ‘Condone Killing’ \( \rightarrow \) accept ‘Denounce U.S.’ \( \rightarrow \) justify rejection of ‘Condone Killing’. Rejection of ‘Condone Killing’ is made through distancing engagement ‘U.S is claiming...’ and countering engagement ‘but a closer look...’. Acceptance of the bond ‘Denounce U.S’ is construed by the negative evaluations in ‘murdered Osama’. Justifying authorial rejection of the out-group bond ‘Condone Killing’ is achieved through heteroglossic engagement towards

\(^{124}\) This tripartite sequence can be seen as roughly equivalent to Bolívar’s (1984 & 1994) triads (discussed in Chapter 3) which involve three phases: Lead, Follow and Valuate.
the coupling positive killing as in ‘would be difficult to argue...terror is clearly not a state’.

The extract above also suggests that moving from rejection of out-group bond to acceptance of in-group bond is scaffolded by internal consequence (in ...lawful act but a closer look at the incident proves them wrong), whereas moving from acceptance of in-group bond to justifying the previous rejection is scaffolded by internal consequence (in e.g. ...proves them wrong. [That is] the evidence so far indicates that the U.S. murdered Osama...).

Accordingly, the Rebuttal stages of the Gazette challenge seem to be ‘logogenetically phased’ around rejection and justification of rejection of out-group bonds in order to justify belonging to the ‘against’ communities and un-belonging to the ‘for’ ones. By contrast, the Argument stages of the Daily Telegraph exposition seem to be phased around acceptance and justification of acceptance of in-group bonds in order to justify belonging to the ‘humanists against the killing’ community. AppAnn visualizations, as discussed next, show that this is a consistent pattern in the AGAINST subcorpus. These two sequences of negotiating bonds in the Argument and Rebuttal stages are illustrated diagrammatically in Figure 5.2.1.5.
Using AppAnn DARs, these three phases of affiliation/disaffiliation and their characteristic bonds in the Argument and Rebuttal stages are visualized in Figure 5.2.16, Figure 5.2.17 and Figure 5.2.18 below. The Daily Telegraph column’s DAR in Figure 5.2.16 shows that the first seven clauses of the stage indicates authorial acceptance of the in-group bond ‘Advocate Killing’ through the coupling positive γ capture encoded in blue circles (positive) enclosing cyan and white circles (semiotic
and capture entities). Then, the ‘affiliative’ phase is signalled by admitting the out-group ‘Complicate Capture’ through the coupling \textit{negative $\gamma$ capture} encoded in red circles enclosing cyan ones in clause [56]. This phase is linked to the previous one through comparison conjunction as indicated by the yellow curves connecting clause [56] with [53] and [49]. The final phase in which authorial acceptance is justified is construed through a series of ‘Condemn Terrorists’ and ‘Denounce U.S./we/us/Americans’ out-group bonds which are, in return, construed through the couplings \textit{positive $\gamma$ we/us} and \textit{negative $\gamma$ terrorists}. These couplings are visually encoded, respectively, in blue circles enclosing green ones (we/us, Americans entities) and red circles enclosing orange ones (terrorists’ entities). Further, this phase is linked back to the previous phase through consequence conjunction encoded in red curves linking clauses [58] and [59] back to [56].

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5_2_1_6.png}
\caption{DAR visualization of one of the Argument stages in the \textit{Daily Telegraph} column showing the phases of the affiliation sequence that functions to justify belonging to the ‘humanists against the killing’ community.}
\end{figure}
The *Guardian* column’s DAR in Figure 5.2.1.7 shows an almost identical pattern of bond negotiation and affiliation/disaffiliation. Initially, authorial acceptance of the in-group bond ‘Denounce U.S., Americans etc.’ is construed through the coupling $\text{negative } \gamma \text{ U.S., we/us}$ (which is encoded in a red circle enclosing a green one) in clause [19]. Then, a ‘justification of this acceptance’ phase is signalled by consequence conjunction (red curve linking [20] back to [19]) and a series of in-group bonds such as ‘Condemn Killing’ realized by couplings e.g. $\text{negative } \gamma \text{ killing}$ (red circles enclosing red ones) in clause [20]. Furthermore, the phase of admitting the out-group bond ‘Complicate Killing’ in clause [23] and onwards is construed by implicit couplings such as $\text{negative } \& \text{ capture}$ in ‘This was not a criminal ...that our courts... could handle’. This phase is followed by another phase of ‘justifying acceptance of in-group bonds’ in clause [28] and [29] which involve the coupling $\text{negative } \gamma \text{ we/us}$. 
Figure 5.2.1.7: DAR visualization of one of the Argument stages in the Guardian column showing the phases of the affiliation sequence that functions to justify belonging to the ‘humanists against the killing’ community.

By contrast, the Gazette editorial’s DAR in Figure 5.2.1.8 shows the ‘rejection of out-group bond, and justification of this rejection’ sequence discussed earlier. First, the Rebuttal stage begins with an authorial rejection of the out-group bond ‘Condone Killing’ construed by the coupling \textit{positive \textgamma killing} (blue circle enclosing blue one) in the clause complex [12-13]. This rejection is immediately followed by stating acceptance of the in-group bond ‘Denounce U.S’ construed by the coupling \textit{negative \textgamma U.S.} in clause [14] (green circle within red one). The movement from rejection to acceptance (in this affiliative sequence) is signalled by consequence conjunction as indicated by the red curve connecting clause [14] to [12] and [13]. From clause [15] onwards, the third phase of ‘justifying rejection of out-group bond’ is signalled by comparison conjunction (yellow curve connecting this clause back to [15]), and by bonds such as
‘Denounce U.S.’ and ‘Condemn Killing’ that are construed by the negative γ U.S. and negative γ killing couplings encoded in red circles enclosing green (U.S. entities) and blue (killing bin Laden entities) ones.

Figure 5.2.1.8: DAR visualization of one of the Rebuttal stages in the Gazette editorial showing the phases of the affiliation/disaffiliation sequence that functions to justify belonging to the ‘humanists against the killing’ community and un-belonging to the ‘for the killing’ communities.

5.2.1.5 Re-affirming membership
After justifying authorial belonging to the ‘humanists against the killing’ community in the Arguments and Rebuttals stages of the AGAINST articles, this belonging is re-affirmed in the Reiteration of Thesis or Anti-Thesis final stages. The process of re-affirming belonging seems to be construed through re-confirming acceptance of in-group bonds. This is illustrated in the following extracts:
Visualizing Discourse Semantics, Identity and Affiliation in the AGAINST Subcorpus

Daily Telegraph Column (Reiteration of Thesis)

All I ask is that we stop pussy-footing around about "hostile acts" and accept that this was an execution.

USA Today Column (Reiteration of Thesis)

So killing instead of capturing bin Laden was a missed opportunity to prove to the world, and especially to the people currently rising up against tyrannies in Arab countries, that bin Laden was a false prophet with an inhuman and worthless cause.

Gazette Editorial (Anti-Thesis)

The law changes constantly, and perhaps new laws will be written that will better frame this so-called "war on terror." But when you look at the laws of today, the U.S. committed murder, plain and simple.

In the Daily Telegraph’s Reiteration of Thesis, the writer re-invites the readers to reject the U.S. justification of the killing that bin Laden committed a 'hostile act', and to accept that the killing was in fact an execution. The USA Today’s Reiteration of Thesis describes the killing as ‘a missed opportunity’ (and implies that capturing is a perfect opportunity) to expose to the world who bin Laden really is. In the Gazette’s Anti-Thesis, readers are invited again to reject the justification that the killing was part of ‘war on terror’, and to consider it as a murder.

From these extracts it can be seen that re-affirming belonging in the Reiteration of Thesis and Anti-Thesis depends primarily on re-confirming authorial acceptance of ‘humanist against the killing’ bonds; namely the ‘Condemn Killing’ bond in the Daily Telegraph’s which is, assuming a compliant reader, construed by the coupling negative γ killing (this was an execution), the ‘Advocate Capture’ in the USA Today’s which is construed by the coupling positive γ capture (opportunity to prove to the world), and the ‘Denounce U.S.’ in the Gazette’s which is construed by the coupling negative γ U.S. (committed a murder). Interestingly, the logogenetic process of re-affirming belonging also seems to involve a negotiation sequence of in-group and out-group bonds. More specifically, in the Daily Telegraph’s Reiteration of Thesis, the bond ‘Condone Killing’ (which is construed through the coupling positive γ killing implied in hostile act) is rejected before the in-group bond ‘Condemn Killing’ is re-confirmed. The rejection is signalled by distancing engagement (scare quotes) in ‘pussy footing around ‘hostile
acts’. The acceptance is re-confirmed through pronounced engagement in ‘and accept this was an execution’. Similarly, in Gazette’s, the bond ‘Condone Killing’ (which is construed through the coupling positive killing implied in ‘war on terror’) is rejected (through distancing engagement ‘so-called “war on terror”’) before re-confirming the in-group bond ‘Denounce U.S.’ (through countering negative evaluation in ‘but...committed a murder ’). In other words, the sequence involves logogenetic shift in identities: from U.S. apologist (justifying the killing) to humanist (condemning the killing and the U.S.). This logogenetic shift is scaffolded by addition conjunction in the Daily Telegraph’s (and accept that this was an execution), and by consequence conjunction in the Gazette challenge Anti-Thesis (But, when we look...). The sequence (of reconfirming rejection of out-group bonds → reconfirming acceptance of in-group bonds) is illustrated diagrammatically in Figure 5.2.1.9 and Figure 5.2.1.10 below.

Figure 5.2.1.9: Sequencing negotiation of bonds in the Reiteration of Thesis stages (double checks and crosses encoding the meaning of ‘reconfirming’).
Using AppAnn DARs, the bipartite sequence of negotiating bonds in the *Reiteration of Thesis* and *Anti-Thesis* is visualized in Figure 5.2.1.11. In the DAR representing the *Daily Telegraph*’s *Reiteration of Thesis* (Figure 5.2.1.11a), the first phase of the sequence is encoded by a red disc (i.e. negative attitude) enclosing a white (standing for the ‘acts’ entity). Note that the discs are enclosed within a blue rectangle indicating heteroglossic engagement (scare quotes “hostile acts”) since the bond construed by the coupling $negative \gamma acts$ belongs to an out-group community (i.e. ‘apologists for the killing’) (more about this later). This bond is re-construed here to be rejected by subsequent bonds. The second phase of the sequence is encoded by two red discs enclosing blue and green ones (standing for the couplings $negative \gamma killing$ and $negative \gamma U.S.$) re-construing the bonds ‘Condemn Killing’ and ‘Denounce U.S.’, respectively. As discussed earlier, this re-construal in this stage is apparently meant to re-confirm authorial acceptance of these bonds. Similarly, in the DAR visualizing the *Gazette*’s *Anti-Thesis* (Figure 5.2.1.11a), the first phase of the sequence is encoded by the blue disc enclosing a blue one in clause [84] (standing for the coupling $positive \gamma killing$). This coupling construes the out-group bond ‘Condone Killing’ through which U.S. apologists justifies the killing as part of ‘war on terror’. The second phase of the sequence is encoded by the red disc enclosing a green one in clause [86] ($negative \gamma U.S.$).

**Figure 5.2.1.10: Sequencing negotiation of bonds in the Anti-Thesis stages**
This coupling construes the in-group bond ‘Denounce U.S.’ which is construed in this stage to be authorially re-confirmed. The transition from the first phase to the second is organized by consequence conjunction encoded by the red curve connecting the clause complex [85-87] back to [83-84]. Furthermore, the blue discs enclosing white ones in clause [87] signal the coupling positive y semiotic entities (in plain and simple). As discussed earlier in section 5.2.1.1, this coupling construes a meta-bond through which the writer emphasizes a central one. Here, the writer, through this bond, emphasizes his reconfirmation of the humanists’ bond ‘Denounce U.S’ in clause [86].

Figure 5.2.1.11: DAR visualizations of the Daily Telegraph’s Reiteration of Thesis (a) and the Gazette’s Anti-Thesis (b) stages. These DARs show the affiliative sequence of re-confirming rejection of out-group bonds  re-confirming acceptance of in-group bonds.

5.2.1.6 Animating negotiations of belonging in the AGAINST articles
As discussed in Chapter 4, AppAnn DAR visualizations preserve logogenesis by displaying instances of APPRAISAL and conjunctive relations as they actually occur in the text (i.e. clause [1], then clause [2] and so on). In AppAnn Flares, by contrast, logogenetic time is represented by animation: visual codes change as we move from
one logogenetic moment (e.g. schematic stage, paragraph) to another. As discussed in section 2.2.4 above, motion is a more natural code for representing and capturing change over time. Accordingly, the logogenetic sequences discussed in the previous five sections can be better visualized by animated Flares. However, due to difficulty in viewing animated visualizations in static diagrams (when compared to e.g. DARs) as every frame of motion needs to be viewed separately, the animated Flares visualizations of the AGAINST articles are provided as video files in the attached CD-ROM (see also Appendix V, section V.1).

5.2.2 Logogenesis of Bonds (visualizing the life of a bond in the AGAINST articles)
In the previous subsections, the social purpose of each generic stage is re-interpreted in terms of affiliative purposes of constructing a community and negotiating belonging—as achieved through sequences of negotiating in-group and out-group bonds (which are in turn realized by sequences of evaluative couplings). In relation to future work, Knight (2010a) notes that “bonds are constantly negotiated and shifted across conversations, and their stability and negotiability in a community can change over time” (p. 285). In this way affiliation can be explored as “a perspective on identity and community as constantly in flux, negotiated through bonds that are changing through time as we interact” rather than as “a static set of relations” (p. 285). In this subsection, this issue is addressed through exploring:

i) how the prominence of a ‘humanist’ bond changes during the unfolding of a text and what the rhetorical and affiliative implications of these changes are (section 5.2.1.7.1); and

ii) how manipulating degrees of authorial commitment towards bonds influence their stability and negotiability as text unfolds, and, in turn, influence the rhetorical and affiliative objectives of the AGAINST articles (section 5.2.1.7.2).

In other words, this subsection is concerned with exploring and visualizing the logogenetic patterns which emerged from evolution, culmination and decay of evaluative couplings and the ‘logogenetic’ variation in co-selections of engagement
and attitudes, as well as the rhetorical effects of those co-selections on the affiliation process.

5.2.2.1.1 Prominence patterns of the ‘humanist’ bonds

In section 5.1 above, it has been shown that arguing against the killing in the BLK corpus is based on two key rhetorical motifs: i) promoting bin Laden’s right to a fair trial, and framing the killing as a violation of these rights; and ii) condemning those who violate human rights including both Al-Qaeda terrorists and the U.S government, officials and military forces. The motifs are realized in the discourse semantics through coupling positive attitudes with capturing bin Laden and negative attitudes towards terrorists, the U.S and the killing. Rhetorically, these couplings function to construe the writers as in total disalignment with terrorism and human rights violations and in alignment with the view that capturing bin Laden and putting him on trial is far more humane and valid alternative. Affiliatively, these evaluative couplings construct a ‘humanists against the killing’ identity as they construe four prominent bonds, ‘Demonize bin Laden’, ‘Denounce U.S’, ‘Advocate Capture’ and ‘Condemn Killing’, through which the AGAINST writers affirm their belonging and negotiate their membership to ‘humanists against the killing’ and ‘anti-terrorism’ communities.

However, these four bonds exhibit different prominence patterns during the logogenetic unfolding of the AGAINST articles, implying that they play different ‘dynamic’ roles in shaping the humanist identity and constructing a humanist voice arguing against the killing. To illustrate this, Figure 5.2.2.1 show the relative frequencies of the evaluative couplings that construe the humanist bonds at each schematic stage of the Guardian column. The frequency patterns of the coupling negative γ bin Laden indicate that prominence of the ‘Demonize bin Laden’ bond fluctuates irregularly in the text, increasing in the Orientation and culminating notably in the Argument 2 and Argument 3 stages. In the Orientation stage where the writer recognizes ‘other’ communities (as discussed in section 5.2.1.2), the bond functions to acknowledge the existence of a global community of anti-terrorism. In the Argument

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125 Frequencies here are relative to other bonds within the same logogenetic moment (i.e. within the same schematic stage). The use of relative frequencies to describe logogenetic patterns of linguistic features is not unique to this study (see e.g. Matthiessen, 2002; Rothery & Stenglin, 2000; Fries, 1985; Yang, 2010). It should be emphasized, however, that we are not concerned here with actual frequency values but rather with the patterns formed by frequency variations.
stages where the writer justifies his belonging to the AGAINST community, the bond confirms the writers’ membership to the anti-terrorism community. This confirmation is tactical as it succeeds the Argument 1 stage where the bonds ‘Denounce U.S’ and ‘Condemn Killing’ are prominent, and, thus, signals a shift from ‘humanist’ to ‘anti-terrorist’ identity. The shift emphasizes that arguing against the arbitrary killing of terrorists does not entail any sympathy for terrorism.

By contrast, the frequency patterns of the coupling negative y U.S show a smooth increase in prominence of the ‘Denounce U.S’ bond until it peaks in Argument 1 stage and then ‘diminuendos’ gradually. Rhetorically, this pattern seems strategic and audience-sensitive. That is, as a potential majority of readers seem to approve the U.S operation that kills bin Laden (see surveys in Appendix VI), reprimanding the U.S for this operation is more likely to endanger solidarity with these readers. Consequently, the bond ‘Denounce U.S’ is offered gradually, preparing intended audience to accept it as the text unfolds. It is not until the argumentation stages that the bond is given high prominence as the tension between enacting a ‘humanist against the killing’ identity and the avoidance of offending ‘other’ communities has likely been resolved at this stage. Furthermore, the gradual decrease in prominence of this bond indicates that its main social function of justifying the writer’s membership to the AGAINST community ‘fades out’ as other humanist bonds (e.g. ‘Demonize bin Laden’, ‘Condemn Killing’) ‘crescendo’.
Figure 5.2.2.1: Prominence logogenetic patterns of the four ‘humanists against the killing’ bonds in the Guardian column. Frequencies are re-encoded by transparency: the more transparent an icon, the less frequent the bond it represents at a given stage, and vice versa.

Finally, variations in the frequencies of the ‘Condemn Killing’ bond indicate that it is relatively more prominent in the Thesis, Argument 2 and Reiteration of Thesis stages. That is, the role of this bond ‘alters’ between setting the boundaries of the ‘humanists against the killing’ community in the Thesis, justifying authorial belonging to this community in the Arguments and re-affirming membership in the Reiteration stage. This ‘alternating’ pattern is reflected by low frequencies followed by high frequencies and then low frequencies of the coupling negative γ killing. The pattern indicates that this bond is in fact the most crucial one in constructing a ‘humanist’ identity and the one at stake in the AGAINST articles. The other three bonds, including the ‘Advocate Capture’ which is only prominent in the Thesis, can be seen, from a logogenesis perspective, as supportive to the role of this ‘central’ bond in the three generic stages.

AppAnn visualizations show that (almost) identical patterns of relative frequencies of these four bonds appear in other AGAINST articles. Since we are
concerned with variations in relative frequencies of evaluative couplings (and, thereby, bonds) over text time, the ideal AppAnn tool to use here is CircleViews (discussed in section 4.2.5). Figure 5.2.2.2 below provides three CircleViews showing the relative frequencies of key evaluative couplings in three AGAINST articles126. Every coupling that construes a humanist bond is given a unique colour: violet for negative γ U.S., orange for negative γ bin Laden, magenta for negative γ killing, and green for positive γ capture. Colour saturation is used to encode relative frequencies: the more saturated, the more frequent a bond at the corresponding logogenetic moment and vice versa. Circle segments represent logogenetic moments (generic stages in this diagram), starting from the first moment (e.g. Headline) in the centre of the circle until the last one (e.g. Reiteration of Thesis) on the perimeter. By examining the patterns of orange saturations, it can be seen that the ‘Demonize bin Laden’ exhibits, in all articles except the Gazette editorial, what I call in section 4.2.5 an ‘erratic’ pattern. This confirms the previous observation that the bond is construed irregularly in the text (to occasionally remind readers that the writers are in disalignment with terrorists and to indicate the writers’ membership to anti-terrorism communities). The ‘alternating’ pattern of the ‘Condemn Killing’ bond in the AGAINST articles is captured by the ‘alternating’ magenta saturation values of the CircleViews’ segments: from low saturation to high to low and so on. The ‘Advocate Capture’ bond shows what is referred to in section 4.2.5 as a ‘brusque’ pattern; i.e. a sudden, high frequency in one (or more) logogenetic moment preceded and succeeded by very low frequencies. For instance, in the Daily Telegraph column, this bond is offered only in Argument 3 stage where evaluations in almost two paragraphs can be read as positive attitudes towards capturing bin Laden (as in e.g. urging that the mass murderer should be put on trial; read him the Miranda, give him his two phone calls; that is the difference between them and us).

By contrast, the saturation patterns of the ‘Denounce U.S’ bond exhibits a fade-in pattern (i.e. gradual increase in frequency) that peaks in the middle Argument of the text and then a fade-out pattern (i.e. gradual decrease in frequency). Though in the CircleViews of the Daily Telegraph and USA Today columns the fade-in pattern is not as evident as in the Guardian column’s, the gradual prominence of the ‘Denounce U.S’ bond is still present: low frequency of the coupling negative γ U.S. at early stages

126 For space’s sake, the Daily Telegraph’s CircleView is not shown here. However, interested readers can view the article’s CircleView in AppAnn 2.0 itself (see Appendix V for more on this).
followed by higher frequencies of the coupling in the middle stages. This emphasizes the gradual role of this bond to construct a humanist identity arguing against the killing, particularly in the argumentation stages of these articles. As an example, the coupling negative U.S does not appear in the USA Today column until the Thesis stage as in arbitrarily killed by a government, a summary execution, where the writer starts setting communal boundaries and affirming his belonging to the ‘humanists against the killing’ community. In the Argument 2 stage, the frequency of this coupling increases (as in nonsense to say ‘justice is done’, misuse of the word ‘justice’, requires a fair trial, making him a martyr by killing him without trial) as the bond ‘Denounce U.S’ is construed to justify the writer’s membership to this community (as discussed in section 5.2.1.4 above). Interestingly, not only the frequency of this bond increases in the Argument stages, but also the authorial commitment associated with it, shifting e.g. from invoked negative U.S (arbitrarily killed, summary execution) in the Thesis to inscribed in the Arguments (misuse, nonsense). This leads us to the second concern of this subsection: how variations in authorial commitment influence the negotiability and stability of the bonds during the unfolding of a text.
Figure 5.2.2: AppAnn CircleViews of three AGAINST articles: the saturation patterns indicate that, in all articles ‘Demonize bin Laden’ exhibits an ‘erratic’ pattern, ‘Condemn Killing’ an ‘alternating’ pattern, ‘Advocate Capture’ a ‘brusque’ pattern, and ‘Denounce U.S’ a fade-in pattern. Furthermore, the out-group bonds ‘Complicate Capture’, ‘Praise U.S’, ‘Condone Killing’ show a ‘brusque’ pattern.
5.2.2.1.2 Negotiability and commitment patterns of the ‘humanist’ evaluations and bonds

In section 5.1, it has been shown that the bond ‘Demonize bin Laden’ is generally proposed in the AGAINST subcorpus with high attitudinal and propositional commitments\(^{127}\) as the coupling negative y bin Laden tends to be associated with monoglossic engagement and inscribed realizations. This limits the negotiability of the bond and radically endangers solidarity with those who do not share it (e.g. terrorists)\(^{128}\). By complete contrast, the bond ‘Denounce U.S’ is generally offered with low attitudinal and propositional commitments as the coupling negative y U.S tends to be associated with heteroglossic engagement and invoked realizations. Consequently, the negotiability of this bond is increased, and solidarity with those who may not share it (e.g. hawks) is at relatively lower risk. The bonds ‘Condemn Killing’ and ‘Advocate Capture’, in comparison, are proposed with ‘inversely correlated’ degrees of attitudinal and propositional commitment; the former is associated with high propositional commitment and low attitudinal one, the latter with the opposite. However, from a logogenetic perspective, degrees of commitment towards these bonds differs notably from one moment to another, resulting in varying degrees of negotiability and stability during the unfolding of a text.

Overall, propositional commitment towards attitudes in the AGAINST subcorpus seems to be remarkably sensitive to the generic structures and text types of the articles. More specifically, in the three AGAINST expositions (Guardian, USA Today and Daily Telegraph columns) low propositional commitment seems to be significantly associated with Headline and Reiteration of Thesis stages, whereas high propositional commitment is more associated with Orientation, Thesis and Arguments. That is, the AGAINST expositions tend to open and close with low propositional commitment towards evaluative couplings and the bonds offered through these couplings. In other words, the bonds proposed during the affiliative processes of establishing a ‘humanists against the killing’ community (in Headlines) and re-affirming belonging to this community (in Reiterations) are far more negotiable than those proposed during e.g. justifying membership to this community (in Arguments).

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\(^{127}\) As discussed in section 5.1, attitudinal commitment refers to the degree of freedom given to readers in aligning with authorial values, and it is regulated by the system of EXPLICITNESS. Propositional commitment is the author’s commitment towards a proposition/proposal, and thereby, towards the values presented in text. Propositional commitment is regulated by ENGAGEMENT, monoglossic formulations indicate high propositional commitment and vice versa. Both types of commitment, in other words, regulate the ‘core-ness’ of a bond, rendering it more or less crucial in the social process of ‘selfing/othering’ or ‘inclusion/exclusion’ (the technical sense of these terms is discussed in Baumann & Gingrich, 2004).

\(^{128}\) And therefore high commitment affirms social ‘alienation’ from terrorists.
This association is apparently tactical, as evaluations in the opening and closing stages are presented as negotiable and, to some extent, problematic in higher levels of periodicity\textsuperscript{129}. A majority of readers who may not share the bonds ‘predicted’ and ‘distilled’ in these stages may find them, at least, less offensive as their proposal is coupled with low commitment.

As an example of this pattern, the \textit{Guardian} column opens with a heteroglossic evaluative coupling negative $\gamma$ U.S in its Headline ‘How Osama bin Laden perverted U.S justice?’ The column also closes with several instances of the same entertained coupling negative $\gamma$ U.S in the Reiteration (as in \textit{perhaps we could, in his absence, remember once again who we are...starting with our system of justice}). As the text begins and ends with low propositional commitment towards the same attitudinal values, it is an example of what Martin & White (2005:230) refer to as ‘meta-relational reprise and confirmation’. The writer here reprises his negative position towards the U.S. and confirms that this position is one out of many possible positions. In other stages of the text, propositional commitment associated with this coupling is maximized through presenting it monoglossically as in e.g. \textit{we delved into medieval-style torture, we reneged on our courts as a viable option... we blindly took aim at a religion.}

The AGAINST challenge (\textit{Gazette} editorial), by contrast, shows a different pattern of propositional commitment. While the Headline and Orientation stages are strongly associated with high degrees of propositional commitment, the Position Challenged and Anti-thesis are more associated with low propositional commitment. As an example, in the first stage of the article the evaluative couplings negative $\gamma$ killing and negative $\gamma$ U.S in ‘Osama bin Laden’s death was murder’ are presented, through monoglossic engagement, with maximum propositional commitment. In the Position Challenged stage, by contrast, the same couplings are associated with low degree of propositional commitment in e.g. ‘…justice had been done. But had it?’ The rhetorical question can be read as ‘entertained’ negative values towards the U.S and the killing. That is, dialogic space for alternative views towards the proposed couplings in the article is only maximized in the stages where ‘other’ interpretations of the killing are challenged and where the authorial interpretation of the killing is offered.

\textsuperscript{129} Interactions between periodicity and affiliation will be discussed as part of future work in the following chapter.
As our concern here is with the association between choices of Engagement and generic stages, AppAnn PRDs (detailed in section 4.2.4) is particularly useful in foregrounding association patterns at stake. Figure 5.2.2.3 below provides four PRD visualizations of monoglossic (in gray) and heteroglossic (in red) patterns in the four AGAINST articles. As discussed in Chapter 4, logogenetic moments (here generic stages) are represented by squares or boxes arranged linearly from the top to the bottom. The colour of a box indicates what type of Engagement is ‘significant’ at the corresponding logogenetic moment. For example, the red colour of the first box in the Guardian column’s PRD indicates that heteroglossic engagement is more significant in the Headline stage than monoglossic. Furthermore, stages that are associated with the same type of Engagement are connected by curves. Transparency of these curves encodes the strength of association (or the degree of significance) between stages and types of Engagement. For example, the red curve connecting Headline, Argument 3 and Reiteration in the Guardian column’s PRD is most opaque at Argument 3, which means that Argument 3 is more associated with heteroglossia than the other two stages.

Colour patterns of the PRDs in Figure 5.2.2.3 confirms the previous observation that the Headline and Reiteration of Thesis of the AGAINST expositions are highly correlated with low propositional commitment, while other stages are correlated with high commitment. This is indicated by the red colours of the boxes representing the Headline and Reiteration, and the gray colours of the boxes representing the Thesis and Arguments. Furthermore, colour patterns of the Gazette editorial’s PRD confirms that low propositional commitment in this challenge article is strongly correlated with the Position Challenged and Anti-Thesis, while other stages are associated with high commitment. Finally, it can be seen that the curves are comparatively more opaque around the boxes representing the Thesis stages, especially in the Guardian and USA Today columns. This indicates that evaluative couplings in the Thesis of these articles are in fact most associated with monoglossic engagement, and, thus, with high propositional commitment. That is, bonds proposed when setting community boundaries in the Thesis are comparatively less negotiable than those proposed in other logogenetic moments.

\[^{130}\] Significance here is statistically determined by Correspondence Analysis applied to a time based-DSC contingency table. See section 4.2.2 for more on this.
Figure 5.2.2.3: AppAnn PRDs of correlations between generic stages and ENGAGEMENT in the AGAINST articles: the PRDs show that in the AGAINST expositions (Guardian, USA Today and Daily Telegraph columns), heteroglossic engagement (encoded in red) is more associated with Headlines and Reiterations. This means the texts open and close with low propositional commitment. By contrast, in the AGAINST challenge (Gazette editorial), heteroglossic engagement is seemingly correlated with only the Position Challenged and Anti-Thesis stages.

Attitudinal commitment also seems to be sensitive to text types and generic structures in the AGAINST subcorpus. More specifically, in the three AGAINST
expositions, low attitudinal commitment is clearly associated with the Headline, Orientation, Thesis and Reiteration of Thesis stages, while high attitudinal commitment is only correlated with Argument stages. If we take as an example the USA Today column, evaluations in the Headline, Thesis and Reiteration of this article are proposed with low attitudinal commitment as they are mainly invoked. For instance, ‘He should have been taken alive’ in the Headline invokes positive evaluations towards capturing bin Laden rather than killing him. Similarly, the expressions ‘arbitrarily killed’ and ‘summary execution’ in the Thesis stage invoke negative attitudes towards the U.S government. In the Arguments, evaluations are proposed more explicitly through inscriptions as in e.g. ‘necessary to apprehend’, ‘failed’, ‘incompetence’, ‘necessary’, ‘missed opportunity’. By contrast, in the AGAINST challenge, low attitudinal commitment is only associated with the Position Challenged stage where evaluations towards the U.S government are invoked as in e.g. ‘Justice has been done. But had it?’ Other stages of the challenge are correlated with high attitudinal commitment through inscribed attitudes. These patterns of attitudinal commitment are visualized in the PRDs in Figure 5.2.2.4. Here, green colours encode inscriptions and blue colours encode invocations. Colour patterns show that low attitudinal commitment is strongly associated with the Headline, Orientation, Thesis, and Position Challenged, as the boxes representing these stages are in blue. The green colours of the boxes representing Arguments, Reiteration and Anti-Thesis indicate that these stages are mainly correlated with inscriptions and, thus, high attitudinal commitment.\footnote{It should be noted that some arguments and rebuttals in the AGAINST articles are also associated with invocations. However, as relatively more arguments show correlation with inscription, it can be concluded that the Argument stages are more associated with high attitudinal commitment.}
Figure 5.2.4: AppAnn PRDs of correlations between generic stages and EXPLICITNESS in the AGAINST articles: the PRDs show that in the AGAINST expositions (Guardian, USA Today and Daily Telegraph columns), invoked attitudes (encoded in blue) are seemingly associated with all stages but the Arguments. By contrast, in the AGAINST challenge (Gazette editorial), inscriptions are correlated with all stages but the Position Challenged.
Figure 5.2.2.5 below summarizes the associations between authorial commitment and the generic stages of the AGAINST expositions. Furthermore, Figure 5.2.2.6 provides three StreamGraphs (discussed in section 4.2.3) showing the relative frequencies of key evaluative couplings over text time. Combining both figures, we can see how the negotiability of an evaluative coupling (and thereby the negotiability of the bond it construes) changes as the text unfolds in generic stages. To begin with, the bonds ‘Denounce U.S’ and ‘Condemn Killing’ seem to be proposed in almost all the stages of the articles as indicated by the blue and magenta streams encoding the couplings negative $\gamma_{U.S}$ and negative $\gamma_{killing}$, respectively. However, in the Headline, the bonds are offered with low degrees of both attitudinal and propositional commitment (as shown in Figure 5.2.2.5). This, as mentioned earlier, renders the bonds more negotiable and less offensive to a majority of readers who may not share it.

Rhetorically, the opening of an AGAINST article is hence more welcoming than intimidating, inviting this majority to share the couplings and accept the two bonds rather than imposing them. In the Thesis stage where propositional commitment is maximized, the negotiability of the bonds is significantly reduced as in e.g. ‘...an explanation for killing an unarmed man, this is starting to get embarrassing’ in the Daily Telegraph’s Thesis. The freedom of readers to align with the negative values towards the U.S and to accept the bonds offered in this stage is, nonetheless, still maximized through low attitudinal commitment. In the Argument stages, negotiability and freedom of interpretability of the bonds are extremely constrained through high degrees of attitudinal and propositional commitment. Here the dialogic space for alternative views towards the U.S and the killing is closed down. Also, only the authorial interpretation (that the U.S is wrong and the killing is inhumane) is offered as the writers justify their belonging to the ‘humanists against the killing’ community in these stages.

In the Reiteration of Thesis, the negotiability as well as interpretability of the couplings and bonds are increased again through low propositional and attitudinal commitment. That is, the dialogic space is re-opened and freedom of axiological interpretation of the values proposed in this stage is unrestricted again. For instance, in the Daily Telegraph’s Reiteration, negative evaluations towards the U.S and the killing in ‘All I ask is that we stop pussy-footing about hostile acts and accept this was an
execution’ are coupled with invocation and proclaim engagement. Solidarity with a majority approving the killing is enhanced again as low commitment surrounds the proposal of the ‘Denounce U.S’ and ‘Condemn Killing’ bonds.

The bond ‘Demonize bin Laden’ is mainly proposed in the Thesis and Argument stages as indicated by the orange streams in Figure 5.2.2.6. In the Thesis, negative evaluations towards bin Laden (as in …the effect of bin Laden’s reign of terror…, the impact bin Laden had on us…) are mainly invoked. Proposing this bond with low attitudinal commitment here is not, apparently, meant to encourage its interpretability or to maintain solidarity with those who do not share it (e.g. terrorists), but to serve two possible functions. First, the writers rely on the target readers’ pre-established values to interpret these evaluations negatively. Second, the writers emphasize that the issue in the AGAINST articles is not how evil bin Laden is, but how wrong his killing is. In other words, readers’ attention is ‘rhetorically’ drawn to the perpetrator rather than the victim. In the Argument stages, however, where the bonds at more stake (e.g. Condemn Killing) are proposed with maximum propositional and attitudinal commitments, the ‘Demonize bin Laden’ is construed with high degrees of commitment. This, as mentioned earlier, functions to ensure the readers that the writers, though condemning the killing, are in total disalignment with terrorists, and that the evilness of bin Laden is unquestionable.
Figure 5.2.2.5: A topological perspective summarizing degrees of propositional and attitudinal commitment towards key evaluative couplings and bonds in the AGAINST exposition stages.
By contrast, the AGAINST challenge (Gazette editorial) opens up with maximum commitment towards the evaluations and bonds proposed by the writer. As shown in Figure 5.2.2.7 below, the Headline is associated with high degrees of both attitudinal and propositional commitment. The StreamGraphs in Figure 5.2.2.8 shows that the main couplings offered in this stage are negative γ killing and positive γ semiotic (in ‘Osama bin Laden’s death was murder, plain and simple’). That is, the author makes it clear early in the text, through monoglossic engagement and attitude inscriptions, that the unlawfulness of the killing is non-negotiable and the only valid interpretation of the incident is that it is illegal. The coupling positive γ semiotic construes, as discussed earlier, a meta-bond, whose function here is to support the proposal of the bond ‘Condemn Killing’. In the Position Challenged, both types of commitment are minimized, rendering the bond ‘Condemn Killing’ and ‘Denounce U.S’ far more negotiable and subject to re-interpretation. As a result, solidarity with a majority approving the killing
is enhanced. In the *Rebuttals*, degrees of commitment are moderate. The dialogic space for alternative interpretations of the killing, the U.S and bin Laden’s capture is opened up and closed down alternately. The StreamGraphs of the article indicates that a variety of ‘humanist’ bonds are at stake here. However, a closer look at these stages (see Appendix II, section II.2.1) suggests that when the writer argues against the legality of the killing, commitment is maximized as in e.g. ‘*Armed conflicts are governed by international humanitarian law*’, ‘*In both cases, IHL forbids the killing of non-combatants*’. But when the writer proposes the bond ‘*Denounce U.S*’, attitudinal and propositional commitments are minimized as in e.g. ‘*war on terror is not legally speaking a war*’, ‘*the U.S would have no legal source*’, ‘*When we look at the facts, Obama sent his Navy SEALs...to kill a man*’. Degrees of propositional commitment are also minimized in the final *Anti-Thesis* stage. The StreamGraphs show that almost the same evaluative couplings in the *Headline* are re-offered in this stage. The only difference, however, is that the bonds ‘*Condemn Killing*’ and ‘*Denounce U.S*’ here are proposed with low propositional commitment as in e.g. ‘*But when we look at the laws of today, the U.S committed murder, plain and simple*’.
Figure 5.2.2.7: A topological perspective summarizing degrees of propositional and attitudinal commitment towards key evaluative couplings and bonds in the AGAINST challenge stages.

Figure 5.2.2.8: StreamGraphs of the AGAINST challenge showing frequencies of key evaluative couplings over text time.

5.3 Summary of Chapter Five
This chapter has illustratively applied AppAnn visualization techniques (discussed in Chapter 4) to the linguistic analyses of the AGAINST articles (see Appendices II, III and IV) in order to see how the AGAINST writers use couplings of APPRAISAL, IDEATION and CONJUNCTION to align target audience with a view against the killing, to negotiate solidarities with readers, to construct a ‘humanist against the killing’ identity, and to affiliate/disaffiliate with different communities around the killing. AppAnn visualizations have been deployed to provide both synoptic and dynamic views on the analyses. Synoptically, AppAnn CrA has moved beyond frequencies of co-occurrence, and effectively identified the overall significant patterns of coupling at the subcorpus level of instantiation. More specifically, the CrA technique has shown that arguing against the killing is based upon two syndromes of meaning. These syndromes are
visualized as two clusters of significant couplings in the CrA plots: one cluster involves negative evaluations towards the killing, the U.S government and bin Laden, and the other involves positive evaluations towards capturing bin Laden and putting him on trial.

AppAnn CrA has also managed to identify the overall patterns of attitudinal and propositional commitment associated with the two humanist clusters of couplings. In the CrA plots, patterns of commitment have been indicated by clusters of coupling of the EXPLICITNESS and ENGAGEMENT choices. Moreover, the synoptic view provided by AppAnn CrA suggests that authorial commitment, in general, is sensitive to the majority view on the killing issue. More specifically, low degrees of both attitudinal and propositional commitment have been shown to be associated with negative evaluations towards the U.S government, whereas high degrees of attitudinal and propositional commitment have been shown to be only associated with negative attitudes towards bin Laden. Medium degrees of authorial commitment, by contrast, seemed to be more associated with controversial values, namely with negative evaluations of the killing and positive attitudes towards capture and trial.

AppAnn CrA has also enabled us to describe these synoptic observations in terms of the individuation (allocation/affiliation) cline. From the perspective of community networks and sub-cultural levels, the evaluative clusters foregrounded by AppAnn CrA have been viewed as four humanist bond complexes (namely ‘Condemn Killing’, ‘Advocate Capture’, ‘Demonize bin Laden’, and ‘Denounce U.S’) allocated to the AGAINST writers’ repertoires by humanist subcultures. In other words, the humanist subculture provides the socio-semantic resources necessary for the AGAINST writers to affiliate with ‘against the killing’ communities and signify their communal belonging. Moreover, the EXPLICITNESS and ENGAGEMENT clusters revealed by AppAnn CrA have shed light on the role of authorial commitment in managing the overall process of affiliation. More specifically, it has been shown that high degrees of attitudinal and authorial commitment position bond clusters (e.g. ‘Demonize bin Laden’) as less negotiable within a community, and put solidarity with ‘other’ communities at risk. Conversely, low degrees of commitment position certain bond clusters (e.g. ‘Denounce U.S’) as more negotiable and promote solidarity with out-group members.
At the text level of instantiation, AppAnn visualization techniques have also helped us explore the dynamics of identity and affiliation over text time. AppAnn DAR and Flares have been found useful for visualizing key features of ATTITUDE, ENGAGEMENT, IDEATION and CONJUNCTION as they couple (and de-couple and re-couple) as texts unfold, and, thereby useful for visualizing how humanist bonds are offered, negotiated, accepted or rejected logogenetically. The two visualizations have in fact enabled us to re-interpret the logogenetic pattern of bonding in relation to the generic structure and social purpose of the articles. More specifically, it has been shown that the dynamic process of rhetoric in the AGAINST articles can be described in terms of affiliation as a macro-sequence (illustrated in Figure 5.2.2.1). Within each macro-phase, the visualization has further identified the ‘affiliative’ micro-sequences of bonds (or bond complexes), the role of authorial commitment (as manifested in EXPLICITNESS and ENGAGEMENT) in negotiating in-group and out-group bonds (e.g. accept, offer, reject), and the role of internal conjunction in organizing these negotiations. AppAnn DAR has also shown how patterns of sequencing and negotiating bonds are influenced by text type. This in turn has improved our understanding of the role of genre (and social purpose) in negotiating identity, membership and affiliation.
As text unfolds, evaluative couplings exhibit varying degrees of prominence, and commitment towards these couplings varies as we move from one logogenetic moment to the next. It has been argued that these logogenetic variations, in turn, influence the logogenetic stability and negotiability of the humanist identity and ‘humanist against the killing’ bonds. Logogenetic patterns of prominence and commitment have been successfully captured by AppAnn CircleViews and PRDs. Interestingly, CircleViews have shown that a bond’s patterns of prominence seem to be dependent on how problematic the bond is within or outside the AGAINST communities. More specifically, problematic bonds (i.e. bonds that are not shared by the majority of readers e.g. Denounce U.S) tend to exhibit a ‘fade-in’ pattern—i.e. they are proposed gradually over text time. Less problematic bonds (e.g. Advocate Capture), by contrast, tend to follow a ‘brusque’ pattern—i.e. they are proposed at once, often in the Thesis/Position Challenged stages. Further, bridging bonds (i.e.
bonds that are expected to be shared by most communities around the killing, e.g. *Demonize bin Laden*) show an ‘erratic’ pattern of prominence—i.e. they are proposed sporadically in the text in order to balance risks to solidarity imposed by problematic bonds.

Finally, AppAnn PRD and StreamGraphs have effectively identified logogenetic patterns of attitudinal and propositional commitment towards the key humanist bonds. PRD has been used to visualize associations between authorial commitment and logogenetic moments. This visualization has shown that degrees of commitment are sensitive to both text type and the particular purposes of the text’s generic stages. More specifically, in the AGAINST expositions, PRD have suggested that high degrees of authorial commitment are strongly associated with the Argument stages, where the authors justify their membership to the ‘humanist against the killing’ community. In early and late stages, degrees of commitment are relatively low. That is, the opening and closing of an AGAINST exposition tend to be more welcoming, inviting the majority to accept problematic bonds (e.g. *Denounce U.S.* and *Condemn Killing*) and reducing risks to solidarity with this majority. By contrast, the AGAINST challenge tend to open with high attitudinal and propositional commitment, offering problematic bonds as non-negotiable at early stages. Moreover, low degrees of authorial commitment are mainly associated with the Position Challenged, where community boundaries are established and authorial belonging to the ‘humanist’ community is affirmed. This, in turn, renders the bonds construed at this stage more negotiable, and community boundaries more fuzzy, as it rhetorically implicates the fine line between anti-terrorism, justice and killing bin Laden. The two visualizations, therefore, move beyond variations in commitment in order to show how text type and social purpose influences the logogenetic negotiability of intracommunal bonds.
Chapter 6 Conclusion

The primary aims of this thesis have been to develop the AppAnn visualization system as a solution to the problem of managing complexity in SFL analyses of language, particularly at the discourse semantics level, and to demonstrate how AppAnn visualizations can be used in a practical discourse analysis context, to explore identity, rhetoric and affiliation. This final chapter concludes the thesis by distilling the key findings and contributions of this study and outlining future directions for further research. Section 6.1 brings together the key findings that have emerged in the previous chapters, and highlights significant implications of this study for SFL discourse analysis, for linguistic studies of rhetoric, persuasion, identity and affiliation in editorials and op-eds, and for the field of linguistic visualization. Section 6.2 discusses the limitations of this work and the possibilities for future research in terms of developing and evaluating AppAnn annotation and visualization tools, and extending the scope of corpus and linguistic analyses.

6.1 Key Findings, Contributions and Implications

In Chapter 1, I noted that the complexity of SFL discourse analysis is of two types: combinatorial and representational. Combinatorial complexity arises from the potentially large number of language systems interacting simultaneously. Representational complexity arises from the difficulty in dealing with and interpreting the instantiation patterns of these systems. As a solution, this thesis has developed AppAnn, a suite of annotation and visualization tools (described in Chapter 4). AppAnn visualizations differ from other linguistic visualization techniques (reviewed in Chapter 4) in that they are

i) informed by fundamental SFL concepts, including instantiation, delicacy, metafunction, axis and social context (reviewed in Chapter 2);

ii) integrated with annotation and text/corpus management tools in one software environment;

iii) oriented to the discourse semantics stratum of language;

iv) tailored to provide both synoptic and dynamic views on discourse semantics analyses;
v) able to visualize different levels of delicacy and text time units; and
vi) fully adjustable to allow for user-defined encoding schemes.

Hence, the main contribution of this work to the field of linguistic information visualization is the development of novel visualization techniques that are not limited to (hitherto computable) features of language such as lexical items or frequencies of word classes, but take into consideration the multidimensional nature of language as elaborated in SFL.

In order to illustrate AppAnn visualizations, they have been deployed to explore identity, rhetorical strategies, individuation and affiliation in the bin Laden killing corpus. In Chapter 3, a review of the literature on genre and evaluation in editorials and op-eds has revealed that most studies pay insufficient attention to the dynamic interactions between interpersonal, ideational and logical meanings. Building upon and contributing to this literature, AppAnn visualizations have been applied (in Chapter 5) to the discourse semantics analyses of the bin Laden killing articles in order to answer the linguistic question posed in Chapter 1 from both synoptic and dynamic perspectives—namely,

how the writers use couplings of APPRAISAL, IDEATION and CONJUNCTION in order to rhetorically align/disalign target readers with the authorial view, to negotiate solidarity, construct identities and establish communities around the killing issue, and to affiliate/disaffiliate with these communities.

The next sections discuss key conclusions, contributions and implications that emanate from the findings and observations highlighted in Chapter 5, particularly in relation to coupling, commitment, instantiation, affiliation and individuation—which are five underdeveloped concepts in SFL (Martin, 2008; 2010).

6.1.1 Identity, co-instantiation and syndromes

In this study, the cline of instantiation provided us with a framework for exploring identity and voice at different levels of ‘generality’. Working at the subcorpus level of

132 These linguistic analyses are given in appendices II, III and IV.
the cline of instantiation, AppAnn CrA visualization has been deployed to identify the key syndromes associated with humanist identity in the AGAINST subcorpus (and hawk and apologist identities in the FOR articles as discussed in Appendix I). In other words, AppAnn CrA has enabled us to see the reconfiguration of APPRAISAL and IDEATION co-choices as we move from writer and commentator voices towards humanist sub-voice (or hawk and apologist sub-voices). However, as Martin (2010) points out, “instantiation is a relatively underdeveloped hierarchy in SFL, in part because it is severely under-theorized, in part because of the difficulty of computing meanings in quantitative analysis” (p. 19). In response, this thesis contributes to our understanding of instantiation in two important ways.

First of all, AppAnn CrA provides a way to quantify couplings that are analyzed and annotated qualitatively. This ‘quantification’ process resolves two instantiation issues. The first issue is concerned with describing the co-instantiation of probabilities as we move from system to text. To illustrate this issue, I will discuss an example given by Zappavigna et al. (2008). To begin, suppose we have a system X of four simultaneous subsystems A, B, C and D, with varying probabilities (of occurrence) assigned to features as shown in Figure 6.1a. Classical probability rules tell us that the probability of a co-occurrence is simply the product of the probabilities of corresponding features. For instance, the probability that the coupling G V I will occur is obtained as 0.1 × 0.5 = 0.05 or 5%. However, when couplings are observed in a text or a specific group of texts, we may notice that the ‘actual’ probabilities of co-occurrence diverge from those defined in the system network. For instance, we may observe that the coupling G V I has in fact a probability of 10% as it occurs (or ‘actualized’) once out of 10 in the table in Figure 6.1b. The possible nonconformity between expected and observed probabilities of coupling is “an example where additional information about the relationships is required, and an example of why we need to engage with statistical measures such as correlation when talking about instantiation” (Zappavigna et al., 2008:173). Furthermore, this is an example of how global probabilities are conditioned by a number of factors including register and social context (Halliday, 1987:139).

The second issue is related to measuring the strength of a coupling. Couplings are analogue and “not an on/off option and may be presented as weighted” (Zappavigna et al., 2008:174). In other words, we need to quantitatively and
systematically account for the ‘particular fingerprint of coupling’ that some texts display and other texts (of the same or different genres) do not display. And, more pertinently, we need to account for how a particular coupling can be characteristic to (or associated with) a text (or corpus) though its frequency in the text is low, but not characteristic to another text where its frequency is relatively higher. In corpus linguistics, this is analogous to measuring associations between two lexical items (i.e. collocation), which is typically determined by t-score and Mutual Information, and to measuring associations between a lexical item and a corpus (i.e. key-ness), which is often done through statistics such as chi-square and log-likelihood (see McEnery & Wilson, 2001; Stubbs, 1995).

Figure 6.1: example of nonconformity between expected and observed probabilities of couplings (Zappavigna et al., 2008:173)

AppAnn CrA resolves these two instantiation issues by visualizing two important quantities: the association between a particular coupling and a text or corpus (e.g. between the coupling positive Ɣ U.S and the AGAINST subcorpus), and the association between features involved in a coupling (e.g. between negative and heteroglossic engagement). The first quantity helps us determine whether a coupling is ‘significant’ in or characteristic to a text or corpus. In the BLK corpus, for instance, AppAnn CrA has shown that the coupling negative appreciation Ɣ ‘killing bin Laden’
is more significant in the AGAINST articles and, thereby, more characteristic to the ‘humanist against killing’ identity (than the hawk or apologist identities discussed in Appendix I). The second quantity determines how strong a coupling is relative to other couplings in a text or corpus. For instance, it was found, through AppAnn CrA plots, that the entity ‘bin Laden killing’ in the AGAINST subcorpus is (70%) ‘more coupled’ with negative attitudes than positive attitudes. By visualizing the two types of association, AppAnn CrA, in other words, provides a systematic way to describe the degree of ‘probabilistic conditioning’ a coupling goes through at different levels of instantiation.

The second contribution of this thesis to coupling and instantiation is its provision of systematic, empirically-grounded resources for analysing and visualizing ‘syndromes’. A syndrome is defined by Zappavigna et al. (2010b) as “the recurrent co-selection of features in a text or corpora contributing to a particular rhetorical strategy” (p. 219). In AppAnn CrA, a syndrome is visualized as a cluster of adjacent spheres or cubes that represent discourse semantic features. As an example, in Figure 6.2, the visual cluster formed by the spheres representing bin Laden, Al-Qaeda, and the U.S and the cube representing negative judgment defines a characteristic syndrome in the AGAINST subcorpus. This syndrome, as discussed in section 5.1.1.2 above, is associated with the rhetorical motif of ‘condemning terrorists and reprimanding the U.S’. In addition, the correlation coefficient shown at the top of the plot indicate how significant this syndrome in the AGAINST articles when compared to other articles in the corpus. Again, this provides us with quantities reflecting the degree of probabilistic conditioning a ‘pattern of couplings’ (or a coupling of couplings) goes through as interpersonal and ideational meanings are instantiated in corpus and text.
6.1.2 Commitment and fellowship negotiation

The thesis has also contributed to SFL discourse analysis by examining the overall influence of social context and individuation on co-choices of EXPLICITNESS and ENGAGEMENT in the BLK texts. AppAnn visualizations have shown that attitudinal commitment (reflected in choices of EXPLICITNESS) and propositional commitment (reflected in choices of ENGAGEMENT) towards attitude-ideation couplings in the AGAINST subcorpus are remarkably sensitive to public opinion about the killing issue. More specifically, values that are not expected to be shared by the majority of readers (e.g. negative attitudes towards U.S officials) tend to be proposed with low degrees of attitudinal and propositional commitment. Conversely, values that are expected to be shared by the majority (e.g. negative attitudes towards bin Laden and Al-Qaeda) tend to be associated with high degrees of commitment. In the FOR subcorpus, similar patterns of commitment can be observed (as discussed in Appendix I, section I.2). For instance, positive values towards the U.S are associated with maximum of both attitudinal and propositional commitment, whereas negative values towards ‘voices against the killing’ tend to be proposed with lower commitment.
Patterns of authorial commitment in the BLK corpus in relation to public opinion are summarized in Figure 6.3. The impact of public opinion on choices of commitment in the BLK corpus raises a number of further questions about the kind of fellowship being negotiated between newspaper and readers, especially in terms of whether the newspaper is merely a mirror of readers’ thoughts and emotions or it “is considered to determine the reader’s knowledge and is able to lead the reader at its own will” (Schäfer, 2012). In chapter 3, it has been mentioned that the social purpose of editorial is to inform, influence and shape public opinion regarding important issues (Hynds & Martin, 1977; Spencer, 1924). For Greenslade (2005), however,

“we cannot divorce the content of newspapers from the opinions of their readership. Popular papers rarely, if ever, publish material that is diametrically opposed the views of their readers. There is a reciprocal relationship between newspaper and audience. In general, papers reflect what people think or, to be more specific, they reflect what they think people think. But the press is not a simple mirror when it seeks to reflect existing public attitudes…The reflecting mirror is … distorted, and only by analysing this process is it possible to understand the true meaning of newspaper power in terms of its relationship with readers.” (Greenslade, 2005:5)
Like instantiation, individuation is an underdeveloped hierarchy in SFL. As mentioned in Chapter 2, Martin (2008) suggests that “our understanding of individuation needs to be elaborated to focus more clearly on identity and affiliation in relation to the rhetorical deployment of appraisal resources” (quoted in Mahboob & Knight, 2008:4). In response, this study builds on work on bonding and affiliation (Stenglin, 2004; Martin & Stenglin, 2006; Knight, 2010a & 2010b), and contributes to the development of this hierarchy in three ways.

Firstly, while Knight’s model (2010a, 2010b) combines subcultural and community bond networks in one layer on the cline of individuation, this thesis argues
that this treatment is in fact problematic, and, hence, suggests a separate layer for subcultural networks. A separate layer for subculture bonds is intended to account for:

i) possible communities belonging to the same subculture but do not share all bonds, e.g. ‘humanists for the killing’ versus ‘humanists against the killing’;

ii) how couplings are allocated by a particular subculture for a particular community; e.g. ‘advocating human rights’ in humanism enables ‘advocating capturing bin Laden’ in the AGAINST community; and

iii) how writers individuate their identity through different levels of identity abstractions (cf. Tajfel, 1982; Turner, 1987), e.g. the identity of a writer as a humanist versus the writer as a ‘humanist against killing bin Laden’.

A second contribution of this study to the individuation/affiliation hierarchy is the identification of two special kinds of bonds: bridging bonds, and meta-bonds. A bridging bond is a bond shared by opposing communities such as ‘Demonize bin Laden’ in the BLK corpus. The proposal of a bridging bond seems to enhance ‘intercommunal rapprochement’. For instance, both AGAINST and FOR writers propose ‘Demonize bin Laden’ to affirm their belonging to a larger community of anti-terrorism, which provides common ground for negotiating other humanist bonds.

AppAnn visualizations have successfully identified bridging bonds at different levels of instantiation. At corpus level, AppAnn CrA will show a bridging bond as a cube or sphere equally distant from subcorpora cubes or spheres, as exemplified in Figure 6.4 below. At text level, a bridging bond will exhibit the same visual patterns in two (or more) opposing texts, e.g. same flare colour and intensity in two AppAnn Flares: one representing an AGAINST article, the other a FOR one.
A meta-bond is proposed in terms of coupling ATTITUDE and semiotic entities such as a writer’s statement, opinion, request or assumption. In the AGAINST subcorpus, the role of this kind of bonds seems to strengthen intra-communal links by emphasizing core community bonds. Moreover, meta-bonds are apparently sensitive to public opinion about the killing as they are only significant in the AGAINST articles. That is, the less shared a community bond among the majority, the more meta-bonds are proposed to support it, and vice versa. For instance, as the humanist bond ‘Condemn Killing’ is not shared by the majority of the surveyed respondents; as such it lends itself to be confirmed by meta-bonds (e.g. ‘Osama bin Laden's death was murder, plain and simple’).

A third contribution of this study to individuation and identity is the reconsideration of the role of EXPLICITNESS and ENGAGEMENT in the affiliation process. For Knight (2010a), ENGAGEMENT is subsumed under EXPLICITNESS as one way of ‘affording’ attitudes. In this thesis, the two systems are treated as separate dimensions regulating degrees of attitudinal and propositional commitment. Based on AppAnn visualizations, these two types of commitment, it has been argued, play two important roles in affiliation. First, they regulate intra-communal negotiability and core-ness of a bond. That is, the more highly committed a bond, the less negotiable within a community it becomes, and vice versa. For instance, in the AGAINST subcorpus, the bond ‘Demonize bin Laden’ is construed with maximum degrees of attitudinal and propositional commitment, which renders it a core, non-negotiable bond within the ‘humanist against the killing’ community. Similarly, the bond ‘Praise U.S’ in the FOR subcorpus is proposed with high degrees of commitment, which renders it a non-negotiable, characteristic bond of the ‘for the killing’ community, as discussed in Appendix I (section I.1.1). The second role of attitudinal and propositional
commitment is to regulate solidarity with out-group communities. That is, lower
degrees of commitment towards a bond make it less offensive to other communities,
and vice versa. For instance, the bond ‘Denounce U.S’ in the AGAINST subcorpus is
proposed with low degrees of commitment, in order to avoid offending a potential
majority who do not share this bond, and to increase its inter-communal negotiability.

6.1.4 The dynamics of discourse semantic couplings
As noted in Chapter 1, the complexity of systemic coupling further increases once it is
examined dynamically as text unfolds since an additional dimension, text time, needs
to be accounted for. As Martin (2011) suggests, coupling theory “awaits the
development of animated visualization tools before real progress can be made” (p.254)
– and until such visualizations are

“designed for the real time coupling in unfolding discourse, it is hard to see
how more than anecdotal progress can be made on this frontier. We know that
texts are snowballing, i.e. accumulating meanings, but we can’t yet get a
synoptic purchase on what is going on.” (Martin, 2010:29)

In response, another major contribution of this thesis to coupling theory is the
design of visualization techniques that preserve the logogenesis of coupling patterns—
the dynamic, multidimensional interactions between discourse semantic meanings as
text unfolds.

In AppAnn visualizations, the visual preservation of a dynamic view of
logogenesis involves addressing two issues. The first is related to a ‘meaningful’
representation of logogenetic time. In spoken discourse (or other types of discourse
such as twitter or film), physical time can be used to indicate logogenetic time (e.g.
Zappavigna, 2012; Podlasov et al., 2012). In case of written text, we are dealing with a
different type of time; it is not ‘clock time’ that is at stake “but instead a form of ‘text
time’ [which is] dependent on the dimension of meaning that the discourse analyst is
interested in exploring” (Zappavigna, 2010:215). In Almutairi (2013), I suggest a
multi-perspectival representation of text time, where time units can be the whole text
(as in Zhao, 2012), a generic stage (as in Rothery & Stenglin, 2000), a discourse phase
(as in Fries, 1985), a clause complex (as in Matthiessen, 2002), or a clause (as in

Halliday & Matthiessen, 2004). In this thesis, the choice of logogenetic unit has been made more flexible (as text time is given a separate coding layer as demonstrated in Appendix V); so the analyst can select any one of the previous units, or even define a new logogenetic unit.

The second issue concerns the visual mapping of the multiple, interacting meanings involved in a coupling. A simple coupling of two features can be visually mapped to a 2-D window on the screen, with relative ease, since the number of features matches the number of spatial dimensions. For instance, Zappavigna et al. (2008) uses Martin’s (2008a) analogy of the double helix formation to visualize coupling along the cline of instantiation in a text (Figure 6.5). In Figure 6.5a, the two spatial dimensions are sufficient to represent the simple coupling disinclination $\forall$ attributive. However, once the coupling involves a third feature, “the inadequacy of two-dimensions for representing associations between more than two variables” becomes evident (Zappavigna et al., 2008:178). Even if we adopt a 3D metaphor (such as cone in Figure 6.5b) to represent a three-feature coupling, the issue persists once four or more features are involved.

Figure 6.5: coupling along the cline of instantiation (Zappavigna et al., 2008:177): a) coupling of two features; b) coupling of three features.

In AppAnn visualizations, this issue has been resolved through dimensionality reduction and pseudo-mapping. AppAnn CrA and PRD visualizations deploy dimension reduction (Correspondence Analysis algorithm in Appendix V) in order to reduce the coupling relations between multiple features into two dimensions that can be plotted in a 2D spatial space. Other AppAnn visualizations deploy pseudo-mapping which is based on the concept of pseudo-colouring (e.g. Ware, 2004). Pseudo-mapping
refers to mapping systemic variables of couplings onto visual variables (e.g. colour hue, shape) other than spatial positions, which thereby makes it possible to visualize these couplings in a 2D display. In AppAnn DAR, for instance, systems involved in a coupling are not represented by spatial dimensions, but by shapes and colours (e.g. engagement is encoded by rectangles, monoglossic engagement by gray rectangles). Spatial dimensions are dedicated to visually encoding text time. In Flares, systemic features are visually encoded by colour hue, brightness and spheres, where 2-D spatial position encodes relations between attitudes and ideational entities, and text time is encoded by motion.

The dynamic, logogenetic view of systemic features provided in AppAnn visualizations has also enabled us to explore discourse semantic couplings in relation to text time from both paradigmatic and syntagmatic perspectives. As noted in Chapter 2, SFL gives priority to paradigmatic relations, and consequently “syntagmatic structures are not derived in real time. Rather they ‘explode’ into being once all the relevant choices have been made in the system networks underlying them” (Martin, 2010:28). However,

“…by emphasizing the paradigmatic, and abstracting away from direct representation of sequence in text, systemicists put themselves in the position of not being able to account for choices which depend on just where the unfolding of a text the realisation process has reached… Accounting for these structure dependent choices, which take into account the meanings that have so far accumulated and where the text is going next then becomes the responsibility of dynamic representations, a frontier area of research in systemic theory.” (Martin & Matthiessen, 1991:360)

AppAnn visualizations can be seen as affording balanced representations of paradigmatic and syntagmatic relations, since they provide simultaneous information about i) what couplings are favoured over others at a given logogenetic moment, and ii) what couplings tend to follow in the next moment. As an example, Figure 6.6 shows how every disc (in DAR) and rectangle (in PRD) is paradigmatically and syntagmatically related to other discs or rectangles. Every disc in DAR (which represents a coupling instance) or rectangle in PRD (which represents a logogenetic
moment) is paradigmatically related to other discs/rectangles in terms of ‘what disc/rectangle could go instead of what’. This relation is visually encoded in colours (e.g. red instead of blue, or blue instead of green). Syntagmatically, every disc/rectangle is related to other discs/rectangles in terms of ‘how discs/rectangles form a sequence over text time’. This syntagmatic relation between a disc/rectangle and other discs/rectangles is visually encoded by spatial position (e.g. left unfolding to right).

By providing a logogenetic, axially-balanced view of discourse semantic couplings, AppAnn visualizations have facilitated our investigation of the dynamic unfolding of bond negotiation and affiliation sequences as will be discussed in the following section.

Figure 6.6: Syntagmatic and paradigmatic relations between visual elements in AppAnn DAR (top) and PRD (bottom)
6.1.5 Genre and the dynamics of affiliation

As noted in Chapter 3, a review of the relevant literature suggests that very few studies on evaluation in English editorials and op-eds have examined how appraisal dynamically interacts with experiential and logical meanings as text unfolds to achieve its rhetorical and social purposes. The current thesis has sought to fill this gap in the literature by deploying AppAnn visualizations to explore the dynamic unfolding of identity, affiliation, and membership negotiation. The findings contribute to SFL discourse analysis and affiliation, particularly in relation to genre theory and the interpretation of genres, genre stages and genre phases as recurrent configurations of meaning (Martin, 1985; 1992a; 1997; 1999; Martin & Rose, 2008).

AppAnn visualizations have effectively shed some light on the impact of genre, social purpose and text-type on the dynamics of affiliation in the BLK articles. To begin, DAR and Flares visualizations have helped us identify the role of each generic stage in the AGAINST affiliation process, and further interpret the generic (syntagmatic) structure as a macro-sequence of bond complexes (e.g. establishing a ‘humanist against the killing’ in the Headline stage → recognizing out-group communities in the Orientation stage). Interestingly, the two visualizations have indicated a similar macro-sequence of affiliation in the FOR articles (as discussed in Appendix I, section I.2.1). The exact order of this macro-sequence, however, seems to be dependent on the specific rhetorical purposes of the texts (e.g. arguing against the killing versus arguing for the killing). For instance, whereas the affiliative function of ‘recognizing out-group communities’ seems to be associated with the Orientation stage in the AGAINST articles, it is apparently more associated with the Thesis/Position Challenged in the FORs (Appendix I, section I.2). This is an example of how the writers manipulate the (syntagmatic) order of affiliation macro-sequence in order to achieve certain rhetorical effects, and, hence, one example of possible interactions between genre and affiliation. More specifically, by recognizing ‘for the killing’ communities in the Orientation, the AGAINST writers position the existence of these communities as a part of the background to the killing issue (as part of the event itself, so to speak). In contrast, by recognizing ‘against the killing’ communities in the Thesis/Position Challenged, the FOR writers suggest that the existence of these communities is an emerging issue that needs to be addressed. Thus the FOR writers not only recognize the out-group communities in the Thesis/Position Challenged stage but
also position their existence as problematic through the proposal of bonds such as ‘Castigate Voices Against’.

Another interaction between genre and affiliation is manifested in the influence of text type on the micro-sequences of affiliation within a stage. This influence is more evident in the ‘justifying belonging’ affiliative phase in the Arguments/Rebuttals. More specifically, it has been shown, through AppAnn DAR and Flares, that whereas ‘justifying belonging’ in the AGAINST exposition is realized by a micro-sequence of acceptance (of in-group bonds) and justification of acceptance, in the AGAINST challenge it is realized by a sequence of rejection (of out-group bonds) and justification of rejection. In other words the Argument stages seem to be based around acceptance of in-group bonds (signalled by co-choices of ENGAGEMENT and EXPLICITNESS, e.g. pronounce Ɣ explicit), whereas the Rebuttal stages are apparently based on rejection of out-group bonds (signalled by e.g. deny). Interestingly, a similar, text-type dependent pattern of affiliation sequencing has been observed in the FOR articles (as discussed in Appendix I, section I.2.1.4).

As a further contribution, the visualizations have foregrounded the different roles of internal conjunction in scaffolding the transition between micro-phases (e.g. whether rejection of out-group bonds is a consequence/conclusion of accepting in-group bonds or a generalization/specification of the acceptance). This has shed some light on the interaction between, on the one hand, conjunction and text type, and, on the other hand, logical meanings and affiliation.

Finally, the thesis contributes to the exploration of affiliation dynamics by providing visualization tools for examining the logogenetic patterns of stability and negotiability of bonds over text time. As noted by Knight (2010a), affiliation should be looked at “as constantly in flux, negotiated through bonds that are changing through time as we interact” (p. 285). In this regard, three AppAnn visualization techniques (CircleViews, PRD and StreamGraphs) have been found useful in exploring how bonding and affiliation change as text unfolds.

AppAnn CircleViews for example provides us with a set of visual patterns that reflect logogenetic variations in bond prominence. It has been suggested that these patterns can help us describe: i) the role of a bond in the affiliation process at a given
logogenetic moment, and ii) the degree to which a bond is problematic for communities around the killing.

For instance, the prominence patterns associated with the bond ‘Denounce U.S’ in the AGAINST articles have indicated that the main affiliative role of this bond is to ‘justify belonging to the humanist community’ as the bond culminates in the Argument stages. The same prominence patterns seem to be associated with the bond ‘Praise U.S’ in the FOR articles (as shown in Appendix I, section I.2.2.1). Moreover, logogenetic prominence of problematic bonds (i.e. bonds that are not shared by the majority, e.g. Denounce U.S) seem to increase slowly as text unfolds, gradually preparing the readers to commune around them as they culminate in the Argument/Rebuttal stages. In contrast, bridging bonds (e.g. Demonize bin Laden) tend to be proposed sporadically or erratically in the text, to balance risks to solidarity with readers once a potentially problematic bond is proposed.

AppAnn PRD and StreamGraphs help us explore changes in attitudinal and propositional commitment towards bonds in relation to text type and generic structure. By foregrounding significant associations between generic stages and co-choices of ENGAGEMENT and EXPLICITNESS, the visualizations enable us to simultaneously see i) how degrees of commitment are influenced by the social purpose of a particular generic stage, and ii) how the social purpose of the text impacts commitment patterns, and, consequently, bonds negotiability as text unfolds. In other words, the two tools provide a visual representation of correlations between, on the one hand, commitment and generic stages (e.g. high commitment in the Argument stages of the AGAINST expositions), and, on the other hand, commitment and text type (e.g. high commitment in Headline and Orientation of challenges compared to low commitment correlated with these stages in expositions). This can improve our understanding of the dynamic relationship between genre, the logogenesis of affiliation and identity negotiation.

6.2 Limitations and Future Directions
This section discusses some of the limitations related to this work, and explores potential directions for future work. Section 6.2.1 discusses limitations imposed by corpus size, and suggests methods for increasing the generalizability of findings. Section 6.2.2 considers other discourse semantic systems that may be explored in order
to further understand how meanings in text interact to achieve its social, rhetorical and affiliative purposes. Section 6.3.3 then outlines possibilities for future research regarding the development and evaluation of AppAnn visualization techniques.

6.2.1 Data, generalizability and automated analysis

As noted in chapter 3, the discourse semantics coding in this thesis has been carried out using AppAnn annotation tools (discussed briefly in Chapter 3, and described in more detail in Appendix V). Although AppAnn has greatly facilitated the coding process, the analysis has been for the most part manual. Needless to say, this, in turn, has considerably limited the size of the study corpus, which consequently constrains the generalizability of the linguistic findings.

Therefore, one potential avenue for future exploration is to extend the sample corpus by including more texts either of the same genre (i.e. media argumentation) or of a different genre (e.g. media reportage). The analysis and visualization of a larger corpus of editorials and op-eds should enable us to see whether the linguistic patterns of identity negotiation and affiliation highlighted in this thesis can be observed in other English newspaper editorials. In addition, the visualization of a corpus of other media text types including hard news, media exemplums, media anecdotes, and media features (see Feez et al., 2008:69) should reveal whether these linguistic patterns are characteristic to media argumentative texts, and if not, to what extent media exposition and challenge differ in terms of negotiating membership and constructing communities around public issues.

The laborious, time-consuming, and thus costly process of manual coding can be eased by utilizing machine learning techniques to extract (and annotate) discourse semantic features automatically or semi-automatically. Accurate fully-automatic analysis of discourse semantics is still out of reach, mainly because accuracy of automation decreases dramatically at higher strata of language (Matthiessen, 2006). Nonetheless, as far as APPRAISAL is concerned, advances in sentiment analysis (e.g. Liu, 2012; Pang & Lee, 2008) offer some possibilities for developing sentiment extraction algorithms for the analysis of appraisal. One notable attempt is Taboada &

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133 How large this corpus should be to be representative enough is still a problematic issue (Sinclair, 2005; Mahlberg, 2004; Bednarek, 2009). However, as a starting point, Matthiessen (2006) suggests 15,000 words as “the point of diminishing returns… beyond 15,000 words, we will not learn much more about the register” in terms of lexicogrammar (p. 108).
Grieve (2004). Their study semi-automatically constructs a sentiment dictionary based on Martin & White (2005) examples of ATTITUDE. This dictionary is then extended using WordNet, and through unsupervised methods is used to extract and classify adjectives in a text according to ATTITUDE subtypes. Whitelaw et al. (2005) explores the possibility of extending Taboada & Grieve’s (2004) work to include GRADUATION realized in adverbs. Bloom et al. (2007) builds on these two studies and incorporates the Stanford parser to automatically identify the target entities of attitudes in addition to APPRAISAL realizations. Although the overall accuracy shown in these studies is still very low (=50%), Bloom et al. (2007) and Bloom (2011) note that accuracy is in part dependent on the genre of the test texts.

In the same vein, Wang & Dong (2009) and Wang (2009) deploy a supervised machine learning model known as ‘support vector machines’ to automatically analyze APPRAISAL in design documents. The two studies conclude that supervised methods can significantly improve accuracy of extracting APPRAISAL (up to 70% in design texts)\textsuperscript{134}. However, accuracy in supervised models is very sensitive to the training set (i.e. the annotated corpus used to train the model). The larger the training set, the more accurately the model can extract APPRAISAL in ‘unseen’ texts (Wang, 2009:92).

As part of future work, AppAnn can be integrated with supervised algorithms that can learn from the manual analyses carried out by users. As Martin (2000b) pleads,

"To programmers we’re saying, “OK; give us an interactive workbench for rich text analysis; automate what you can, and we’ll do the rest by hand; and by the way, please build a program that can learn from our manual analysis and from our manual editing of your automations how to automate better and automate more!”" (p. 236)

Figure 6.7 provides a preliminary model that incorporates interactive machine learning for discourse semantics analysis. The first step is to train the model using a manually-annotated small corpus. The training process may involve extracting the words surrounding the annotated instances, labelling them with basic syntactic or semantic information (e.g. sense information based on WordNet, word class and

\textsuperscript{134} Even supervised learning models are apparently sensitive to genre. Dong (personal communication, 2012) notes that once their model (which is well trained on APPRAISAL in design documents) is applied to movie reviews, its accuracy drops significantly.
grammatical dependency obtained from Stanford NLP tools\textsuperscript{135}), and arranging the labelled data in training vectors. Next, the model uses the training vectors as input to the learning algorithm. Common learning algorithms in computational linguistics include support vector machines, naïve Bayes classifiers, and artificial neural networks (Abney, 2007; Pustejovsky & Stubbs, 2012). The model would need to be dynamic and interactive. That is, new user annotations would be continuously arranged as training input vectors, and machine annotations would be automatically suggested by the model. The user would have the ability to correct the model’s annotations. Once these annotations are corrected, they would be arranged as new training input in a cyclic process of learning, annotating, correcting and learning again.

Figure 6.7: interactive machine learning model for automatic discourse semantics analysis

\textsuperscript{135} AppAnn has been already integrated with Stanford NLP tools and WordNet 3.0 sense information. The next step is to incorporate learning algorithms.
6.2.2 Additional Discourse Semantic systems

In this thesis, GRADUATION is only considered when it invokes (flags) attitudes in a coupling, or when attitudinal commitment is being analysed (since flagged attitudes are less committed than inscriptions). There is thus scope for future work to investigate other potential roles of GRADUATION in the negotiation of affiliation. One possible area for investigation is the affiliative effect of coupling of attitudes with sharpening/softening focus graduations. As an example, consider the following extracts from the NYTimes column,

*In another inane debate last week, many voices suggested that decapitating the head of a deadly terrorist network was some sort of injustice.*

Here, the negative judgment of the U.S in ‘injustice’ proposes the ‘humanist against the killing’ bond ‘Denounce U.S’. As far as affiliation/disaffiliation is concerned, the writer’s rejection of this proposal is clearly indicated by the negative judgment in ‘inane debate’ that targets the AGAINST communities, as discussed in the previous chapter. However, since GRADUATION is not included in the thesis’ linguistic analysis, insufficient attention has been paid to the coupling of softening (sort of)\(^{136}\) with the negative judgment of the U.S. Softening graduation here can be considered further (linguistic) evidence of the authorial rejection.

AppAnn DAR and Flares can be modified to visualize sharpening and softening graduations by using, for instance, blur effects to encode softening instances as exemplified in Figure 6.8. Moreover, size may be a better visual code for intensification, deploying larger discs if attitudes are coupled with force. Other AppAnn visualizations can represent GRADUATION categories and choices without further modification, given that proper SQEs (Systemic Query Expressions) are used.

\(^{136}\) The co-text of ‘sort of injustice’ suggests that it is agnate to ‘injustice, sort of’ and thus can be read as a softening focus instance.
Coding and visualizing GRADUATION can be somewhat problematic once we decide to treat it (topologically) as a scalar system. As Martin & White (2005:16) comment,

“values being located along a continuous scale extending from ‘low’ to ‘high’, with various intermediate points possible between these two extremes. Thus the sequence, contented ^ happy ^ joyous ^ ecstatic, can be analysed as representing a cline from the low intensity value of contented to the maximally high value of ecstatic.”

Treating graduation as a scalar system can be important when we, as discourse analysts, are interested in how texts differ in terms of values of intensity coupled with attitudes (Bednarek, 2009) or how these values vary as text unfolds to create certain rhetorical effects (White, 1998:172; Almutairi, 2013). In this case, the GRADUATION system network in AppAnn may be modified to include, in addition to the discrete choices, a scaled feature controlled by a trackbar tool as exemplified in Figure 6.9. The trackbar can be moved left (lowest) or right (highest), according to degrees of force realized by a GRADUATION instance. To further facilitate the GRADUATION analysis, all GRADUATION instances in a particular text or corpus can be listed in an optional, separate window in which the user can modify the intensity of each instance with respect to other instances in a comparative mode.
As far as visualization is concerned, scaled graduations are not categorical data any more, but numerical. Numerical variables, as discussed in Chapter 2, are better encoded by size and position, rather than colour hue or shape (Mackinlay, 1986; MacEachren, 2004). In AppAnn DAR, scaled GRADUATION values can be encoded by the size of a disc—the more intensified an attitude instance, the larger the disc representing it, and vice versa. However, visualizing scaled graduation in the remaining AppAnn techniques can be a major issue, since these techniques are based on frequency of categorical features. One way to work around this issue is to convert scaled GRADUATION into a categorical variable (i.e. with categories such as very high, high, medium, low, very low).

Another direction of future work would involve investigation of the role of PERIODICITY in the dynamic process of affiliation and identity negotiation. As noted in
Chapter 5, a dynamic perspective on affiliation highlights some important interaction between higher levels of PERIODICITY and bonds, raising questions as to how bonds are associated with higher-level Themes and News, how macro- and hyper-Themes predict phases of affiliation and higher-level Themes distils membership negotiation, how commitment towards certain bonds or bond complexes varies at different peaks and troughs of PERIODICITY, and most importantly how genre influences these interactions.

Future research should thus develop methods for visualizing PERIODICITY in text. Unlike APPRAISAL and CONJUNCTION, PERIODICITY cannot be properly counted unless it interacts logogenetically with other discourse features. For instance, the fact that there are a certain number of hyper-Themes in a text may not be very revealing. But, the fact that certain couplings of APPRAISAL and IDEATION (or certain CONJUNCTION types) tend to occur at high levels of PERIODICITY when compared to other couplings can have important implications for discourse analysis. From a synoptic perspective, PERIODICITY can be coded in a separate layer of analysis, in the same way logogenetic moments (e.g. stages) are coded. This would enable AppAnn visualizations to treat (and visualize) couplings of PERIODICITY with other features like any other discourse semantic coupling, as exemplified in Figure 6.10 below.

![Figure 6.10: Possible way of visualizing PERIODICITY in AppAnn CrA](image)

From a dynamic perspective, one straightforward way to visualize hierarchies of PERIODICITY is through visual representation of the metaphor of ‘waves’. In this regard AppAnn DAR can be modified to encode high-level Themes and News by coloured curves, as exemplified in Figure 6.11. There are two ways of making these
curves meaningful. One involves representing each level of periodicity with a curve starting from the logogenetic moment where the macro- or hyper-Theme is instantiated and ending at the moment where the macro- or hyper-New occurs (Figure 6.11a). This way the curve should have one “information peak where Theme and New are conflated” (Rose, 2004:530), and would preserve the hierarchical relations between high-level Themes and New as each layer of periodicity is encapsulated by the layer above it. Alternatively, the curve can be drawn in such a way that it shows two peaks: one peak for the macro- or hyper-Theme and another for the macro- or hyper-New. This curve would preserve the meaning of ‘prominence’, with high-level Themes foregrounding prediction, and high-level News foregrounding the value of distilled news.

![Figure 6.11: Possible visualization of hierarchies of PERIODICITY in AppAnn DAR](image.png)

6.2.3 Developing visualization

A final important area of future research would involve improving AppAnn visualization techniques in terms of better encoding schemes, usability, comprehensibility and interactivity. In order to effectively achieve this, we need to devise methods for evaluating AppAnn visualizations and highlighting aspects that require further improvement. As noted in Chapter 2, these methods can be analytical or empirical. In this thesis, I adopted an analytical method as the visualizations are developed according to a set of design heuristics. This method, as suggested by
Greenberg and Buxton (2008) and Collins (2010), is especially suited to visualization ‘prototypes’ such as AppAnn techniques. However, the next stage of AppAnn development requires some empirical enquiry based on user observation and feedback. Mazza (2009) explains the importance of such enquiry as follows:

“Systems that employ visual representations of information are thought of as being used by a particular category of users who have to carry out a specific task in a determined context. It is therefore a good idea to evaluate how these systems affect their users. An evaluation should provide the designer of an application with the data essential for understanding if, and under what conditions, it satisfies the users’ needs, if it responds to their expectations and if users can effectively draw some benefit from the activity. A serious and rigorous evaluation is essential in the development process of a system that uses visual representations.” (p. 125)

Future empirical evaluation of AppAnn visualizations may involve case studies, questionnaires and interviews (Lam et al., 2012; Shneiderman & Plaisant, 2006).

In addition, in order to elicit wider feedback and more critical comments, AppAnn can be further improved to automatically read discourse annotations produced by other coding systems such as the UAM CorpusTool (O’Donnell, 2008) and Systemics 1.0 (O’Halloran, 2003), and allow users to visualize these annotations without the need of re-coding.

6.3 Envoi

Halliday (1985:6), commenting on the evolution of SFL, suggests that,

“a salient feature in the evolution of systemic theory: its permeability from outside. By "outside" I mean not only outside itself, from other theories of language such as tagmemics and stratification theory, but also from outside linguistics, from disciplines for which language is not the object of study but rather an instrument for some other purpose ... Systemic theory has never been walled in by disciplinary boundaries”
By drawing on the fields of information visualization, computer graphics and computational linguistics to develop a suite of systemic visualization techniques, this thesis attests to this permeability. And it attests to its promise, through the development of a new frontier in the linguistic landscape— one which enables the management of big data, in all its complexity, as texts unfold.


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the Seventh conference on International Language Resources and Evaluation (LREC'10), Malta.


ACM SIGKDD Workshop on Visual Analytics and Knowledge Discovery (pp. 30-39). New York: ACM.


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APPENDIX I  VISUALIZING DISCOURSE SEMANTICS IN THE FOR SUBCORPUS

In Chapter 5, AppAnn visualization techniques are applied to the discourse semantic analyses of the AGAINST articles (given in appendices II, III, and IV) in order to illustrate how these visualizations can help us answer the question

how the AGAINST writers use couplings of APPRAISAL, IDEATION and CONJUNCTION to rhetorically align/disalign target readers with a view arguing against or for the killing, to negotiate solidarity and establish communities around the killing issue, and to affiliate or disaffiliate with these communities

In this appendix, AppAnn visualization techniques are used with the FOR subcorpus to explore how the writers deploy evaluative couplings to align/disalign target readers with a view supporting the killing, and to negotiate solidarity with communities around the killing.

Similarly, this appendix is divided into two main sections. Section I.1 is concerned with the synoptic patterns associated with the key authorial identities in the FOR subcorpus. The synoptic analysis focuses on couplings of APPRAISAL and IDEATION from a subcorpus point of instantiation. The aim is to identify and visualize the recurrent coupling patterns that realize the overall rhetorical motifs in the FOR articles and through which the writers construe for themselves particular identities, present themselves as in-group members and align readers into the FOR communities. The findings of this section are then discussed in terms of SFL hierarchies (instantiation, individuation and affiliation) with the aim of hypothesizing how these patterns of meaning are instantiated in the subcorpus, and how they are allocated to the writers’ repertoires by the culture (sub-cultures and communities). As this section is more concerned with instantiation at a subcorpus level, the main visualization deployed here is AppAnn CrA (discussed in section 4.2.2).

In section I.2, the analytical focus is shifted from a static, synoptic view to a dynamic one: from what coupling of meanings goes instead of what, to what coupling
goes where and when. The dynamic analysis is concerned with how choices of
APPRAISAL, ideational entities and CONJUNCTION couple and decouple during the
logogenetic unfolding of FOR texts, in order to achieve certain rhetorical manoeuvres,
to affiliate with in-groups and disaffiliate with out-groups, to affirm communal
belonging and to justify authorial membership to FOR communities around the bin
Laden’s killing. In addition, the logogenetic process of coupling is examined in
relation to generic structure, text-type and social purposes of the texts. The aim of this
examination is to determine (and visualize) how text type influences the affiliation
process and negotiation of bonds in the FOR articles.

1.1 SYNOPTIC VIEW ON ‘ARGUING FOR THE KILLING’:
CONSTRUCTING THE HAWK AND APOLOGIST IDENTITY IN THE
FOR SUBCORPUS

There are two dominant identities associated with arguing for the killing in the
BLK corpus: hawk and apologist. According to Merriam-Webster’s online dictionary
of English, a hawk is “one who takes a militant attitude and advocates immediate
vigorous action; especially: a supporter of a war or warlike policy”. ‘Hawkism’, in
this sense, intersects with hard-core versions of ideological patriotism and nationalism
such as super-patriotism (Parenti, 2004:2) or ultra-nationalism (Griffin, 2013:37).
The political apologist voice, by contrast, is less aggressive as it seeks to justify and
rationalize the U.S. interventions and operations including killing bin Laden. In this
subsection, the focus will be on the overall constellations or motifs of meaning that
identify the hawk and apologist voices in the FOR subcorpus through exploring:

i) the evaluative couplings through which writers signal their
membership in the ‘hawk for the killing’ or ‘apologist for the killing’
communities, create rapport and construct affiliations with ideal
readers and in-group members; and

ii) the rhetorical strategies by which ‘out-group’ and resistant readers
(e.g. humanists against the killing) are re-aligned around the
authorial values naturalised by the FOR texts.
As in the previous subsection, this subsection is concluded with a description (and theorization) of evaluative couplings and key rhetorical motifs in the FOR subcorpus in terms instantiation, individuation, and negotiation of values across and within communities around the killing. Furthermore, AppAnn CrA visualization (detailed in chapter 4, section 4.3.2) will again be deployed to detect and foreground significant clusters of APPRAISAL and ideation couplings that are characteristic to the hawk and apologist argumentations.

I.1.1 THE HAWK IDENTITY: PRAISING THE US AND CASTIGATE THOSE AGAINST THE KILLING

The principal rhetorical motif that identify the hawk voice in the FOR subcorpus consists of applauding the United States for the killing operation and deriding voices against the killing. This motif is discourse-semantically manifested in a cluster chiefly formed by two evaluative couplings:

i) positive attitudes targeting the U.S. government and Navy SEALs, and

ii) negative attitudes targeting those opposing the killing.

The first coupling (positive γ U.S.) has the rhetorical function of portraying the killing operation as a quintessential example of the United States’ capacity, strength, intelligence and courage. The positive values are intended to provoke a sense of patriotism and heroism among readers, inviting them to look at the killing as a national achievement and a victory over ‘enemies’, as demonstrated in the following examples:
The first five extracts express various positive judgments of the U.S. capacity and tenacity such as smartness, strength, expertise and courage. The NY Times columnist in extract (6) draws attention to not only the positive social-esteem values but also to the positive moral aspects of the killing (social-sanction). An example of this positive morality is the way the Navy SEALs performed the killing operation: by taking great care not to harm innocent people. Another example (given in the last extract) is the way bin Laden’s corpse was treated: with great respect and in accordance with Islamic law. Here, the FOR writers diverts our attention, as readers, from the ethicality of the killing itself to the way it is performed; which is evaluated as a morally appropriate way.

By the second evaluative coupling (negative γ voices against the killing), the ‘hawk’ voice in the FOR subcorpus indicates a strong disalignment with ‘other’ views that the killing is wrong, unjust, unlawful and inhumane. This disalignment is chiefly expressed through derision and ridicule as in the following four extracts:

1) We briefly celebrated one of the few clear-cut military victories we’d had in a long time, a win that made us feel like Americans again — smart and strong and capable of finding our enemies [NY Times Column]

2) It is a great victory [Pittsburgh Editorial]

3) But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment [Pittsburgh Editorial]

4) Something that seemed in short supply, good military intelligence, paved the way for American courage and expertise to do its job [USA Today Editorial]

5) When Navy SEALs, adrenalin pumping, burst into bin Laden's Pakistani lair on Sunday night, they faced gunfire [USA Today Editorial]

6) Morally and operationally, this was counterterrorism at its finest [NY Times Column]

7) Unlike Osama, the Navy Seals took great care not to harm civilians — they shot Bin Laden’s youngest wife in the leg and carried two young girls out of harm’s way before killing Osama [NY Times Column]

8) Swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice. Again, a well-considered choice [USA Today Editorial]
In the first two extracts, the semiotic entities debate and assumption are targeted by negative appreciation instances (inane, insane) to invoke, through ‘symbolization’\(^1\), negative judgment of those opposing the killing. In the third extract, negative judgment of capacity (foolishness) and veracity (knavery) targeting ‘voices against the killing’ are more explicit. Negative veracity values here imply that questioning the morality of the killing is a sign of anti-nationalism, or as it is put forth by extract (4), an indication of anti-Americanism.

The apparently strong association, suggested in the previous two sets of examples, between the two evaluative couplings (positive \(\gamma\) U.S. and negative \(\gamma\) voices against the killing) and the FOR subcorpus is confirmed by the AppAnn CrA plot in Figure I.1. The plot shows a significant (statistical) association (circled in red at the top) between positive judgment and the U.S. entity group (including US Officials/Agencies, Obama, we/us). This association is indicated by the close distance between the spheres encoding these entities and the positive judgment (brown) cube. Also, the CrA shows a strong association (circled in red at the bottom) between negative judgment and the ‘voices against the killing’ entity group as marked by the close distance between their corresponding cube (green) and sphere (red). Overall, the correlation coefficient (\(\approx 89\%\)) is high enough to conclude that the evaluative cluster (positive \(\gamma\) U.S. and negative \(\gamma\) voices against the killing), and, thus, the hawk voice it identifies, is particularly characteristic of the FOR subcorpus.

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\(^1\) As mentioned earlier, Martin (p.c.) suggests the term ‘symbolize’ to refer to appreciation or affect invoking judgment.
Figure I.1: An AppAnn CrA plot of a table cross-classifying the six types of attitudes and ideational entity groups in the FOR subcorpus: the plot shows a significant cluster of couplings (circled in red) between; on the one hand, positive judgment and the U.S. entity group, and, on the other hand, negative judgment and ‘voices against the killing’ entities. This significance suggests that praising the U.S. and presenting those opposing the killing as lacking either intellectual capacity or national loyalty is a characteristic rhetorical motif in the FOR subcorpus.

The previous two sets of examples also indicate different degrees of attitudinal commitment associated with the two evaluative couplings. That is, positive evaluations of the U.S. government, officials, Obama, we/us as Americans, and similar ideational entities tend to be associated with high attitudinal commitment through inscriptions as in e.g. strong, capable, daring etc. By contrast, negative evaluations towards ‘voices against the killing’ are expressed with low attitudinal commitment through invocations (chiefly symbolizations) as in e.g. inane debate, insane assumption, second-guessing and so on. Rhetorically, then, freedom of interpretation of positive values towards the U.S. entity group in the FOR subcorpus
is maximally restricted as the hawk voice offers only one axiological interpretation of
the killing: ‘it means we, Americans, are strong, capable and smart; and nothing else’.
This coupling of inscription and positive attitude is intended, it seems, to establish
invigorating rapport with a construed audience of nationalists, and to re-align a
minority of readers opposing the killing into a communality in which nationalism
values are central and paramount. By comparison, freedom of axiological
interpretation associated with the negative stance towards ‘voices against the killing’
is, to a great extent, expanded, through low attitudinal commitment, providing for the
possibility of solidarity with a potential reader for whom equating ‘arguing against the
killing’ with ‘lack of either intellectual capability or nationalism’ does not hold.
Linguistically, these varying degrees of attitudinal commitment towards praising the
U.S. and deriding those against the killing in the FOR subcorpus are encoded in (and
indicated by) a cluster of two significant couplings: \textit{inscribe} \, \textit{positive} \, \textit{U.S.} and
\textit{invoke} \, \textit{negative} \, \textit{voices against the killing}. This cluster is visually highlighted
(circled in red) in the AppAnn CrA plot in Figure I.2. The distances between the
(blue) cubes representing \textit{the U.S. government, Americans, we/us} entities and the
positive inscribe sphere (orange) indicate that the first coupling is (at least 70%)
significant in the FOR subcorpus. Similarly, the distance between the ‘voices against
the killing’ cube and the negative invoke sphere suggests that the second coupling is
(at least 70%) significant.
Figure I.2: Cross-classifying POLARITY of attitude, DEGREE OF EXPLICITNESS and the BLK entity groups in the FOR subcorpus: the plot shows that coupling ‘voices against the killing’ entity group with negative invocations and the U.S. entities with positive inscriptions is particularly significant in the FOR subcorpus. The significance of these couplings indicate that i) establishing strong rapport with a potential majority of nationalists by assigning high attitudinal commitment to the positive evaluations of the U.S. entities, and ii) mitigating risks to solidarity with those opposing the killing by assigning low attitudinal commitment to the negative evaluations of them, are two key rhetorical strategies for arguing for the killing.

Whereas the hawk’s attitudinal commitment varies according to whether the target of evaluation is the U.S. or ‘voices against the killing’, the previous extracts also suggest that propositional commitment towards evaluations of these entity groups is almost always maximized through monoglossic propositions as in e.g. it is a great victory and the really insane assumption. That is, it seems characteristic of the hawk’s stance to close down the dialogistic space and debar allowance for alternative views on the two entity groups: U.S. courage, intelligence and capability and ‘voices’ against the killing’ ignorance are presented as given and non-negotiable. The CrA plot in Figure I.3 shows (circled in red) that coupling high propositional commitment through monoglossic engagement with the evaluations of these entities is (statistically) significant in the FOR articles. Figure I.4 summarizes the degrees of attitudinal and propositional commitments associated with the hawk identity in the FOR subcorpus.
Figure I.3: Cross-classifying the least delicate choices of ENGAGEMENT and the entity groups in the FOR subcorpus: the plot shows that a cluster (in red) involving coupling monoglossic choices with evaluations towards the U.S. and ‘voices against the killing’ entity groups is significant in this subcorpus. The statistical significance of this cluster indicates that a main rhetorical strategy for arguing for the killing involves presenting the U.S. capability, intelligence and courage as well as the ignorance of those opposing the killing as unquestionable facts through maximum propositional commitment.
Figure I.4: a topological perspective on the interaction between propositional and attitudinal commitment to the evaluations of the U.S and ‘voices against the killing’ in the FOR subcorpus. This diagram indicates a ‘correlative’ interaction between attitudinal and propositional commitments towards the positive evaluations of the U.S. entities and an inverse correlation between commitments towards the negative evaluations of ‘voices against the killing’.

I.1.2 THE APOLOGIST IDENTITY: JUSTIFYING THE KILLING, DEMONIZING THE VICTIM AND CONDONING THE KILLING

The U.S. apologist voice in the FOR subcorpus is identified through a rhetorical motif that justifies the killing by accentuating the evilness of the victim and appealing to the positive consequences of the killing. This motif is discourse-semantically realized in a cluster involving two evaluative couplings:

i) negative attitudes targeting bin Laden, Al-Qaeda and similar entities; and

ii) positive feeling triggered by and positive attitudes targeting killing bin Laden.
Previously, it has been shown that the AGAINST writers deploy the first coupling (*negative* \(\gamma\) *bin Laden, Al-Qaeda, Terrorists*) in order to affiliate with a global community of anti-terrorism and to affirm that arguing against the killing does not mean sympathy with terrorists. The FOR writers deploy the same evaluative coupling to rhetorically align resistant readers (e.g., humanists) into the view that killing bin Laden was the only way to end his evilness, brutality and wickedness, as illustrated in the following extracts:

1) *...decapitating the head of a deadly terrorist network...* [NY Times column]
2) *...the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.* [Pittsburgh editorial]
3) *...Armed or unarmed, bin Laden got what he deserved* [USA Today editorial]
4) *to deliver justice for the mass murder of 9/11, bin Laden deserved to die by any means necessary* [USA Today editorial]
5) *Bin Laden declared war on the U.S. in a fatwa in 1996. Two years later, he attacked two U.S. Embassies in East Africa, killing 220 people, including a dozen Americans; he followed up in 2000 with an attack on the USS Cole, killing 17 sailors. Then he engineered the incredible slaughter of 9/11. And in his sick mind that was just a warm-up. He said he wanted to kill 4 million Americans.* [USA Today editorial]
6) *When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more, that seems like the only civilized and morally sound response.* [NY Times column]

In the first two extracts, the lexical metaphors (see e.g. Halliday, 2003:21) of bin Laden being the head of a deadly snake or a cancer and of the killing being analogous to the decapitation of that snake or the surgical removal of cancer are deployed to ‘provoke’ intense negative attitudes towards him while simultaneously induce positive attitudes towards the killing (as, for most people, snakes and cancer are potentially lethal and the removal of such dangerous things is usually desirable). Extract (3) and (4) emphasize the evilness of bin Laden to the extent that he deserved to die. The killing here is implied to be some sort of poetic or karmic justice by deploying what van Dijk (2008:362) refers to as “semantic reversal of blame (blaming the victim)”. In extract (5) and (6) graduations such as *4 million, dozen Americans,* and *countless* and non-core vocabulary such as *slaughter* and *bragged* are deployed to ‘flag’ intensified negative attitudes towards bin Laden, and, hence, to re-align resistant readers (e.g. humanists) with the conclusion that killing someone who killed
and wanted to kill millions of Americans was the inevitable way to stop his genocidal madness.

Though the previous extracts implicitly evaluate the killing as a positive achievement, and, thus, implicate that the evaluative coupling \((\text{positive } \gamma \text{ killing})\) is also significant in the FOR subcorpus, the following examples do so more explicitly:

1) *When college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere, they were the opposite of bloodthirsty: they were happy that one of the most certifiably evil figures of our time was no more.* [NY Times column]
2) *Americans have waited 10 years for this day and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil.* [Pittsburgh editorial]
3) *...Angela Merkel, the German chancellor, said she was “glad” Bin Laden had been killed…* [USA Today editorial]
4) *the United Nations secretary general, said he was “much relieved” at the news of Bin Laden’s death.* [NY Times column]
5) *…give the nation a moment of victorious exultation.* [Pittsburgh editorial]

In these extracts, the apologist voice justifies the killing from the perspective that it stimulated positive emotions in Americans, and even public figures around the globe. Feelings of happiness and contentment triggered by the killing are, according to these extracts, an additional indication that the killing is right and proper. Resistant readers opposing the killing are rhetorically invited to fall into this combination of *argumentum ad populum* and *argumentum ab auctoritate*, and share the national and ‘global’ joy about the killing. It should be noted that emotions here are either non-authorial (*e.g. they were happy*) or attributed to external sources (*e.g. said he was “much relieved”*). As discussed in Chapter 3 (section 3.3.1), non-authorial AFFECT is a key characteristic of the reporter voice. That is, the apologist voice in these extracts intends, at least outwardly, to appear as an objective and unbiased observer; to invite sharing of feelings rather than to compel and coerce.

The two sets of examples, then, suggest a strong association between the evaluative cluster \((\text{positive } \gamma \text{ killing} \text{ and negative } \gamma \text{ bin Laden})\) and the FOR articles as shown in the CrA visualization in Figure I.5. The plot illustrates that bin Laden and Al-Qaeda entities’ spheres (green) are very close, and, thus, strongly associated, to the negative judgment cube (magenta). Also, bin Laden’s killing entities (grey sphere) are sufficiently close to the positive affect and positive appreciation cubes (orange and
light green) to conclude that the evaluative coupling (positive γ killing) is (at least 87%) significant in the FOR subcorpus.

Figure I.5: Cross-classifying the six types of attitudes and ideational entity groups in the FOR subcorpus: this plot shows a significant cluster of couplings (circled in red) between; on the one hand, positive affect and appreciation and the killing entity group, and, on the other hand, negative judgment and bin Laden/Al-Qaeda entities. This significance suggests that justifying the killing through ‘demonizing’ bin Laden (and Al-Qaeda) and reporting the positive public feelings about his death is a characteristic rhetorical motif of the apologist identity in the FOR subcorpus.

The preceding examples also bring up an interesting point regarding the degrees of attitudinal commitment associated with the two evaluative couplings. Positive feelings about the killing in the second set are expressed, through inscriptions, with high attitudinal commitment. That is, readers’ freedom of interpreting public feelings and emotions triggered by the killing is restricted to only one possible interpretation advanced by the writers: ‘people are happy’. By contrast, negative evaluations of bin Laden and Al-Qaeda are ‘unexpectedly’ expressed with low attitudinal commitment by coupling them with invocation. This is not to say,
however, that negative inscriptions of those entities do not exist in the FOR subcorpus, but, as can be seen in the previous extracts, they are chiefly construed implicitly (as in e.g. *He said he wanted to kill 4 million Americans*). Prosodically, this is a consequence of the fact that the FOR writers (and even the AGAINST writers, as noted earlier) base, to a great extent, their rhetoric on ‘demonizing’ bin Laden and Al-Qaeda, which, in return, pressurizes us as compliant readers to ‘frequently’ read most ideational meanings in the texts (e.g. *that was just a warm-up* in extract 5 above and *planned to kill countless* in extract 6) as negative evaluations of these two entities.

Rhetorically, the apologist voice, by increasing the freedom of evaluative interpretation here through low attitudinal commitment, seems to also increase its reliance on the target audience’s “implication, inference, and association” to evaluate these entities negatively (White, 2011:17). In other words, as the FOR writers construe an audience already in alignment with the negative stance towards terrorists, they direct most attitudinal investment, so to speak, to the more problematic (axiological) values; namely those towards the killing. In the following subsection, these low-committed evaluations of bin Laden and Al-Qaeda are rethought in terms of bonding and affiliation, and vis-à-vis degrees of bond core-ness within the ‘FOR the killing’ communities.

This strong association between, on the one hand, negative \(\gamma\) bin Laden/Al-Qaeda and low attitudinal commitment, and positive \(\gamma\) killing and high attitudinal commitment is visualized in the AppAnn CrA plot in Figure I.6. Here, when compared to other entity cubes, the ones representing bin Laden and Al-Qaeda entities are significantly closer to the negative invoke sphere than other spheres (as circled in red at the top of the visualization). Similarly, the bin Laden’s killing cube is comparatively closer to the positive inscribe cube (as circled at the bottom of the plot). An overall correlation coefficient of 0.67 indicates that negative evaluations of bin Laden/Al-Qaeda in the FOR subcorpus is (at least 67%) more associated with low attitudinal commitment whereas evaluations of the killing are more correlated with high attitudinal commitment.
Figure I.6: Cross-classifying POLARITY of attitude, DEGREE OF EXPLICITNESS and the BLK entity groups: the plot shows that coupling ‘bin Laden/Al-Qaeda’ entities with negative invocations and the killing with positive inscriptions is particularly significant in the FOR subcorpus.

Furthermore, the apologist voice apparently tends to associate the negative characteristics of bin Laden and Al-Qaeda with high propositional commitment through coupling them with monoglossic engagement (as in e.g. *the mass murderer*). The positive feelings triggered by the killing, nonetheless, seem to be expressed with varying degrees of propositional commitment; with high degree as in the bare assertion ‘*they are happy*’ in extract (1) above, or low degree as in the attributed proposition ‘*said she was glad that bin Laden had been killed*’ in extract (3). These correlations are visualized in Figure I.7 below. The CrA plot indicates that whereas bin Laden/Al-Qaeda entities are associated with monoglossic engagement, bin Laden’s killing entity is double-associated with both monoglossia and attributing engagement (as circled in red).
Figure 1.7: An AppAnn CRA plot of a table cross-classifying five choices of ENGAGEMENT and the entity groups in the FOR subcorpus: the plot shows that a cluster (in red) involving coupleings of monoglossic choices with evaluations towards bin Laden/Al-Qaeda entities and of attribution with bin Laden’s killing is significant in this subcorpus. The statistical significance of this cluster indicates that a main rhetorical strategy for justifying the killing involves i) presenting the negative characteristics of bin Laden as unquestionable facts through maximum propositional commitment; and ii) reporting, rather than imposing, the positive emotions and feelings triggered by the killing.

Bearing in mind the degrees of attitudinal commitment discussed earlier, there appears, then, to be an inverse correlation between the degrees of attitudinal and propositional commitments associated with the negative evaluations of bin Laden and Al-Qaeda. That is, whereas, on the one hand, the apologist voice expresses these negative attitudes with low attitudinal commitment and, thus, opens up the axiological space for different interpretations, through high propositional commitment, on the other hand it closes down the dialogic space for alternative voices. In other words, as readers are given more freedom to align with the authorial interpretation of axiological values towards bin Laden/Al-Qaeda, this interpretation is presented as the only valid one. The interaction between the two kinds of commitment towards the
positive feelings and emotions triggered by the killing is somewhere between ‘correlated’ and ‘inversely correlated’ as these emotions are equally coupled with both heteroglossic and monoglossic engagement. However, although some of them are expressed monoglossically and thus with high propositional commitment, the fact that they are observed rather than authorially experienced renders them, to some extent, more negotiable (e.g. negotiating, accepting or rejecting ‘they are/were happy’ is more likely than negotiating ‘I am/was happy’). But even though the apologist voice detaches itself, to some extent, from responsibility for those feelings, and therefore expands the dialogic space for other views on the killing, it attaches to them high attitudinal commitment, through inscriptions, offering only one emotional interpretation of the killing; i.e. joyfulness. The inverse correlation between attitudinal and propositional commitments regarding bin Laden and his death is illustrated diagrammatically in Figure I.8.

Figure I.8: a topological perspective on the interaction between propositional and attitudinal commitments towards the evaluations of bin Laden and his death in the FOR subcorpus. This diagram indicates an inverse correlation between the two kinds of commitment.
I.1.3 CONSTRUCTION OF THE HAWK AND APOLOGIST VOICES IN THE FOR SUBCORPUS: SYNDROMES, BONDING, AFFILIATION AND INDIVIDUATION

The discussion in the previous two subsections shows that the rhetorical argumentation for killing bin Laden is based upon two key syndromes of meaning. The first syndrome involves praising the United States for the operation that killed bin Laden and castigating those who oppose this operation. The second syndrome involves demonizing bin Laden and sanctioning his killing. From a realization perspective, the two syndromes are manifested in the discourse semantics by inter- and intra-systemic couplings such as positive judgment U.S. inscription monoglossic and positive affect killing inscription heteroglossic. From an instantiation perspective, the two syndromes identify two key sub-voices: hawk and apologist, through specification of the overall range of selections and co-selections available for the 'commentator' voice. These two sub-voices and their associated syndromes are illustrated diagrammatically from the perspectives of instantiation and realization in Figure I.9 and Figure I.10 below.
Figure I.9: instantiation of hawk sub-voice and realization of its associated syndromes in the FOR subcorpus.
From an individuation/affiliation perspective, the four couplings (assuming a compliant reader as discussed in Chapter 2, section 2.1.1.7) construe four social bonds identifying the ‘for the killing’ community; namely ‘Praise U.S.’, ‘Castigate Other Voices’, ‘Condone Killing’, and ‘Demonize bin Laden’. The ‘Praise U.S.’ and ‘Castigate Other Voices’ bonds interconnect with other possible bonds to distinguish a sub-community of ‘hawks supporting the killing’ whereas the ‘Condone Killing’ and ‘Demonize bin Laden’ define a sub-community of ‘apologists for the killing’. Both sub-communities bond networks, in return, are connected to higher-level subcultural bond networks of, for example, nationalism, patriotism, conservatism, political pragmatism and utilitarianism and so forth. Again, as discussed in Chapter 5 (section 5.2.1.3), the explicit addition of these sub-culture networks enables us to see the more general ‘defining’ bonds that ‘allocate’, from the culture reservoirs and ‘master’ ideological resources, the potential community bonds of ‘hawks and apologists for the killing’. For instance, a ‘defining’ bond in the patriotism subculture
is ‘promote loyalty to government’ (Stam & Shohat, 2007:302). This and similar bonds mobilize resources from the cultural reservoir to provide the social potential for the community bond ‘Praise U.S.’ to be linguistically construed by and communally shared among the ‘hawks for the killing’ members. Similarly, the ‘castigate anti-nationalism’ defining bond in the right-wing, romantic nationalism sub-culture provides the social potential for the ‘Castigate Voices Against the Killing’ bond to be construed and shared within the ‘hawks for the killing’ sub-community. A further example is the general bond ‘defend state against enemies’ which is a core, characteristic and defining bond in the patriotism and nationalism subcultures (Blaut, 1987:15). This and similar bonds socially and linguistically enable the construal and sharing of the ‘Condone Killing’ in the ‘apologists for the killing’ sub-community. Along the cline of individuation, the ‘hawk’ and ‘U.S. apologist’ social identities undergo various levels of abstraction: writers as members of ‘hawks and apologists for the killing’, writers as members of the patriotism, nationalism etc. sub-cultures, writers as members of western culture, and so forth. The ‘hawks’ and ‘apologists’ bond networks are illustrated diagrammatically from an individuation perspective in Figure I.11 below.
This figure also depicts the degrees of attitudinal and propositional commitments associated with each bond in the ‘for the killing’ community network. As discussed in Chapter 5 (section 5.2.1), the extent to which a bond is negotiated is apparently controlled by the extent of commitments associated with it. Attitudinal commitment increases or decreases the negotiability of a bond by expanding or restricting the scope of its ‘axiological’ interpretation. Propositional commitment
increases or decreases the negotiability of a bond by admitting or refusing its disputability. Both kinds of commitment rhetorically influence the status of a bond within and outside a community. From one perspective, they regulate the ‘core-ness’ of the values included in a bond within a community, rendering it more or less crucial in the social process of ‘selfing’/‘othering’ or ‘inclusion/exclusion’\(^2\) (i.e. in defining the boundaries of a community). From another perspective, they regulate the threatening or offensive qualities of a bond, reducing or increasing risks to solidarity with ‘out-group’ and other ‘opposing’ communities. For instance, the ‘Praise U.S.’ bond in the ‘hawks for the killing’ sub-community network is construed, through coupling inscribed attitudes with monoglossic engagement, with high degrees of both attitudinal and propositional commitment (i.e. commitments are ‘complementary’). Consequently, the core-ness and centrality of the bond in this sub-community is unquestionable, and its offensiveness to opposing communities is maximized. Other bonds in the ‘for the killing’ community (namely ‘Castigate Other Voices’, ‘Condone Killing’, and ‘Demonize bin Laden’) are more negotiable and less threatening as they are construed with either low attitudinal commitment or low propositional one (i.e. inverse correlation between commitments). As we did with the AGAINST bonds in Error! Reference source not found., Figure I.12 below provides a topological perspective on the degrees of commitment associated with bonds in the FOR subcorpus.

\(^2\) The technical sense of these terms is discussed in Baumann & Gingrich (2004).
I.2 DYNAMIC PATTERNS: THE LOGOGENESIS OF IDENTITY AND THE LOGOGENETIC LIFE OF BONDS IN THE FOR SUBCORPUS

I.2.1 LOGOGENETIC CONSTRUCTION OF APOLOGIST AND HAWK IDENTITIES IN THE FOR SUBCORPUS

In Chapter 5 (section 5.2.1), generic stages of the AGAINST expositions and challenge are re-interpreted in terms of affiliation and negotiating identities. In this section, generic stages of the FOR expositions (Pittsburgh and USA Today editorials) and challenge (NY Times column) are re-interpreted as an affiliative macro-sequence consisting of:

1) Establishing an ‘apologist for the killing’ community in the Headline stage,
2) Affirming belonging to the ‘for the killing’ community in Orientation, 
3) Recognizing AGAINST communities in Thesis/Position Challenged, 
4) Justifying belonging to the ‘for’ communities in Arguments/Rebuttals, and 
5) Re-affirming the belonging in Reiteration of Thesis/Anti-Thesis.

This subsection discusses how this ‘affiliation sequence’ is construed by systemic sequences of the evaluative couplings that propose (and construe, assuming a compliant reader) the ‘for’ bonds. Again, AppAnn DAR (discussed in Chapter 4, section 4.3.8) and AppAnn Flares (discussed in Chapter 4, section 4.3.9) are shown to be useful for visualizing the dynamic formation of APPRAISAL $\Gamma$ IDEATION couplings that, in turn, construct the apologist, anti-terrorist and hawk identities during the logogenetic unfolding of texts.

I.2.1.1 ESTABLISHING AN ‘APOLOGET FOR THE KILLING’ COMMUNITY

In section 5.2.1.1, it has been shown that Headline in the AGAINST articles serves the affiliation function of establishing the in-group community. In the three FOR articles, the Headline stage seems to serve the same function of establishing an ‘apologist for the killing community’ through the construal of the apologist and anti-terrorist bonds (‘Condone Killing’ and ‘Demonize bin Laden’). To illustrate this, the Headlines of the FOR articles are given below:

Justice is done: Osama bin Laden is paid back in his own coin. (Pittsburgh editorial)

Our view: Armed or unarmed, bin Laden got what he deserved. (USA Today editorial)

Killing Evil Doesn’t Make Us Evil. (NY Times column)

The Pittsburgh and USA Today expositions establish an ‘apologist for the killing’ community through the bond ‘Condone Killing’, which is construed, assuming a compliant reader, by the evaluative coupling positive $\Gamma$ killing (invoked in ‘justice is done’ and ‘deserved’). By contrast, establishing the in-group community and
apologist identity in the *NY Times* challenge is achieved through rejecting the central ‘humanists against the killing’ bond ‘*Denounce U.S.*’. This rejection is manifested through proposing the coupling negative γ U.S with a denial ‘…doesn’t make us evil’. Moreover, the bond ‘*Demonize bin Laden*’ is also proposed in all three *Headlines*, through the coupling negative γ bin Laden afforded in ‘*got what he deserved*’, inscribed in ‘*evil*’ or provoked in ‘*paid back in his own coin*’. Coupling this bond with other ‘apologist’ bonds in this generic stage serves two functions. First, it presents the writers as members of a global community anti-terrorism, and, thereby, establishes, early in the texts, bonding with a majority of readers (including humanists) against terrorism. Second, it is rhetorically intended to imply that approving the killing is equivalent to anti-terrorism and vice versa. This is at odds with the rhetorical effect of the syndrome negative γ bin Laden and negative γ killing in the AGAINST subcorpus, as discussed earlier.

The apologist and anti-terrorist bonds in the FOR *Headlines* are visualized in the partial AppAnn Flares in Figure I.13. The bond ‘*Demonize bin Laden*’ is encoded in red flares surrounding the bin Laden’s sphere. The grey rings inside each flare indicate that the bond is presented with monoglossic engagement signalling the authorial ‘maximum’ acceptance of the bond. The bond ‘*Condone Killing*’ is encoded by blue flares around the sphere representing the killing. Again, authorial high propositional commitment is indicated by the grey rings inside the flares. In the *NY Times*’ Flares, the coupling negative γ U.S. we/us… is encoded in the red flare around the ‘we/us’ entity sphere. As the source of this coupling is in fact ‘voices against the killing’, the traces of the flare’s motion are linked back to the ‘voices against the killing’ sphere. The blue ring inside the flare encodes the denial of this bond and, thereby, the authorial rejection of the ‘*Denounce U.S., we/us*…’ bond.

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3 Fully animated Flares can be found in the CD ROM enclosed in this thesis. See Appendix V for more information.
Figure I.13: Flares (partial) visualizations of the four FOR articles at the Headline logogenetic moment: patterns of flares around entity spheres encode the evaluative couplings positive \( \gamma \) killing in the *USA Today* editorial’s and *Pittsburgh* editorial’s, negative \( \gamma \) bin Laden and U.S. in all three articles, and negative \( \gamma \) U.S., we/us \( \gamma \) deny in the *NY Times* column’s. These couplings indicate the bonds (namely ‘Condone Killing’, ‘Demonize bin Laden’) that function to initially construct an apologist identity and establish a community of ‘for the killing’.

I.2.1.2 AFFIRMING BELONGING TO ‘FOR THE KILLING’ COMMUNITY AND SETTING COMMUNAL BOUNDARIES IN ORIENTATION

The analysis of generic structure in Appendix II (section II.2.2) below indicates that the Orientation stage is present in two FOR articles: the *NY Times* column and *Pittsburgh* editorial. In the Orientations of the two articles, the patterns of evaluative couplings suggest that the affiliation purpose here is to affirm authorial membership to the ‘for the killing’ community and define communal boundaries (i.e. boundaries of in-group as opposed to out-groups). This is one difference between the AGAINST
and FOR articles as in the former, the writers tend to signal the existence of the ‘for the killing’ community in the Orientation and postpone affirming their membership until the Thesis or Position Challenged (as discussed in section 5.2.1 above). This affiliative motif is illustrated in the two extracts given below.

In an undeclared war against shadowy foes, the long years of the fight do not often give the nation a moment of victorious exultation. But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment. ... it is a great victory nonetheless -- and something more than that. [Pittsburgh editorial’s Orientation]

I want memory, and justice, and revenge. When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more that seems like the only civilized and morally sound response. We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again smart and strong and capable of finding our enemies and striking back [NY Times columnist’s Orientation]

Here, the Pittsburgh editor affirms their membership to the ‘for the killing’ communities through constructing hawk and apologist identities. The hawk identity is enacted through the the bond ‘Praise U.S’ proposed by coupling positive tenacity and the U.S entities in ‘the daring raid of American special forces’. The apologist identity is conveyed through the bond ‘Condone Killing’ which is offered in the coupling positive γ killing in ‘great victory’ and ‘such a moment’. The writer expresses his acceptance of these bonds through countering engagement (but... nonetheless), admitting to some extent that the two bonds could be ‘surprising’ to out-groups. The NY Times columnist also affirms their belonging to the ‘for the killing’ community through the bonds ‘Condone Killing’ and ‘Praise U.S’. The first bond is proposed through the coupling positive γ killing in e.g. ‘I want…justice...’ and ‘civilized and morally sound response’. The second bond is construed by positive γ U.S, Americans, we/us in e.g. ‘clear-cut military victories’ and ‘smart, strong and capable’. Acceptance of these two bonds is signalled by coupling them with monoglossic engagement and inscribed attitudes, which, in turn, presents them as non-negotiable (rather than counter-expected) inside the FOR community. This is another difference, in terms of commitment and bonds, between the challenge and exposition in the BLK corpus and will be revisited in section 5.2.2.7 below.
In both Orientations, then, affirming communal belonging seems to involve a micro-sequence of authorially accepted in-group bonds: accept 'Praise U.S' — accept 'Condone Killing' in the Pittsburgh editorial’s, or accept 'Condone Killing' — accept 'Praise U.S' in the NY Times column’s. This micro-sequence of affiliation is visualized in the Flares in Figure I.14. As Flares is an animated technique showing multiple frames per logogenetic moment (as explained in section 4.3.9), only two key frames of the Pittsburgh editorial’s Orientation are included in this figure. The first frame (a) shows the first phase of the sequence where the bond ‘Condone Killing’ is offered by the coupling positive γ killing. This coupling is encoded in the blue flare around the bin Laden’s killing sphere. The second frame (b) shows the second phase of the sequence where the bond ‘Praise U.S’ is proposed through the coupling positive γ U.S (encoded in blue flares around the U.S. officials sphere). The Flares further indicate two things. First, in addition to the writer, Americans are also presented as ‘condoners’ of the killing. This is encoded in the traces of flares around the killing sphere, which shows Americans as another source of positive evaluations of the killing entity (mainly mediated AFFECT as in e.g. ‘give the nation a moment of victorious exultation’). The appeal to public emotion here extends the ‘for the killing’ communal boundaries as it presents the bond ‘Condone Killing’ as commonly shared by the whole ‘nation’. Second, the relatively large number of blue flares around the killing sphere suggests that the evaluative coupling positive γ killing is more prominent in this stage than positive γ U.S. That is, the bond ‘Condone Killing’ is more significant in the affiliation process of affirming authorial belonging to the FOR community. Patterns of prominence will be discussed in section I.II.II below.

4 The full animation of Flares is provided in the attached CD. More details is given in section 5.2.2.6 below.
Figure I.14: Key frames of animated Flares of the Pittsburgh editorial’s Orientation: patterns of flares around entity spheres encode the micro-sequence of ‘Condone Killing’ (a) and ‘Praise U.S.’ (b) bonds in this stage. Further, the larger number of flares...
around the killing sphere in (c) indicates the relatively more prominent role of ‘Condone Killing’ in affirming authorial belonging to ‘for the killing’ communities and setting communal boundaries.

### 1.2.1.3 RECOGNIZING AGAINST COMMUNITIES IN THESIS/POSITION CHALLENGED

While the AGAINST writers acknowledge the existence of ‘for the killing’ communities early in the Orientation as discussed in section 5.2.1.2 above, the FOR writers postpone recognizing the ‘against the killing’ communities until Thesis in the expositions and Position Challenged in the FOR challenge. The affiliation process of out-group recognition seems to be achieved through rejecting a ‘humanists for the killing’ bond or accepting the hawk’s bond ‘Castigate Other Voices’, as illustrated in the following extracts.

*Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death …? In a word, no. Whether judged by the formal rules of war…. bin Laden deserved to die by any means necessary. Still, a few voices are calling for an inquiry into how bin Laden was killed and questioning whether he could, and should, have been captured alive and put on trial. The facts, the law and circumstances of the operation should put those questions to rest.* [USA Today editorial’s Thesis]

*In another inane debate last week, many voices suggested that decapitating the head of a deadly terrorist network was some sort of injustice.* [NY Times column’s Position Challenged]

The *USA Today’s Thesis* begins with a rejection of the humanist bond ‘Condemn Killing’. This rejection is lexicalised in ‘In a word, no’. The use of the rhetorical question ‘Does it matter…death…?’ serves to acknowledge the existence of an out-group community who believes that ‘it matters whether bin Laden was unarmed or not’. Next, the writer states their acceptance of the in-group bond ‘Condone Killing’ realized in ‘deserved to die by any means necessary’. This acceptance is signalled by proposing this bond with maximum propositional commitment through monoglossic engagement. The out-group recognition is repeated in ‘still, a few voices are calling…should have been captured alive and put on trial’. Coupling the positive
evaluation of the capture with distancing engagement (in ‘a few voices’\textsuperscript{5}) indicates the authorial rejection of the bond ‘Advocate Capture’ proposed by the out-group.

Recognizing the ‘against the killing’ communities in the NY Times’ Position Challenged is achieved by proposing the in-group bond ‘Castigate Voices AGAINST’. This bond is construed through the evaluative coupling negative $\gamma$ other voices in ‘inane debate’. Here, the authorial rejection of the humanist bond ‘Condemn Killing’ is achieved through i) the negative appreciation of the ‘other voices’ semiotic product (i.e. their debate against the killing) and ii) softening graduation\textsuperscript{6} (in ‘some sort’) coupled with the other voices’ evaluation of the killing as unjust. Moreover, negative evaluations of bin Laden (provoked in ‘the head of a deadly terrorist network’) reinforces the rejection of the AGAINST bond and the acceptance of the FOR bond ‘Condone Killing’.

These patterns of affiliation in the FOR Thesis/Position Challenged are visualized in the AppAnn DARs in Figure I.15. In the USA Today editorial’s DAR, positive evaluations of the killing and the U.S are encoded in blue discs (stands for positive) that enclose blue (stands for killing) and green (U.S) discs, in clause [4]. The grey rectangle behind these discs indicates that the evaluations are presented monoglossically. This indicates authorial acceptance of the bonds ‘Condone Killing’ and ‘Praise U.S’ proposed through the positive couplings. In clause [7], the blue disc enclosing the cyan one encodes the coupling positive $\gamma$ capture. The green rectangle enclosing this disc indicates distancing engagement, which signals the authorial rejection of the humanist bond ‘Advocate Capture’. In the NY Times column’s DAR, the red discs encompassing the yellow and white discs encode the couplings negative $\gamma$ voices against and negative $\gamma$ semiotic entity, respectively, through which the writer recognizes the ‘humanists against the killing’ community and rejects their bond ‘Condemn Killing’.

\textsuperscript{5} As suggested by Hood (2004), distancing engagement can be invoked by low graduation:quantification, as discussed in section 2.1.2.2.

\textsuperscript{6} As discussed in section 2.1.2.2, softening graduation often invokes negative attitudes whereas sharpening graduation often invokes positive attitudes.
Figure L15: DAR visualization of the Thesis stages in the USA Today editorial and NY Times column: the visualization shows the interactions between attitudes, engagement and ideational entities that affiliatively function to recognize the AGAINST community in the FOR articles.

1.2.1.4 JUSTIFY BELONGING TO THE ‘FOR THE KILLING’ COMMUNITIES

In Chapter 5 (section 5.2.1.4), we have seen that the affiliative purpose of the AGAINST Arguments/Rebuttals is to justify the authors’ belonging to the ‘humanists against the killing’ community, through a sequence of accepted/rejected bonds. The coupling patterns in the FOR Arguments/Rebuttals suggest that the FOR writers also seeks to justify and rationalize their belonging to the ‘for the killing’ community in these stages. And, the logogenetic process of justification also seems to be dependent on text-type. More specifically, while the justification process in the FOR Arguments is apparently achieved through rationalizing authorial acceptance of in-group bonds (e.g. ‘Condone Killing’), in the FOR Rebuttals, it seems to be accomplished through justifying rejection of out-group bonds (e.g. ‘Denounce U.S’). This is illustrated in the following extracts from the FOR Arguments and Rebuttals.
In the USA Today’s Argument, the writer begins with proposing the anti-terrorist bond ‘Demonize bin Laden’ through the coupling negative γ bin Laden. Their acceptance of this bond is signalled through inscription (e.g. ‘sick mind’), intensification (e.g. ‘slaughter’, ‘4 million Americans’) and monoglossic engagement. Next, the in-group bond ‘Castigate Other Voices’ is offered through the coupling negative γ other voices (invoked in ‘exercise for academics...tool for anti-American’). The acceptance of this bond is justified through the bond ‘Condone Killing’ which is construed, assuming a compliant reader, by the coupling positive γ killing in ‘justice is done’. That is, the justification process here seems to involve the sequence: accept ‘Demonize bin Laden’ & ‘Castigate Other Voices’ → justify authorial acceptance of these in-group bonds.

[USA Today editorial’s Argument]

Bin Laden declared war on the U.S. in a fatwa in 1996. Two years later, he attacked two U.S. Embassies in East Africa, killing 220 people, including a dozen Americans; he followed up in 2000 with an attack on the USS Cole, killing 17 sailors. Then he engineered the incredible slaughter of 9/11. And in his sick mind that was just a warm-up. He said he wanted to kill 4 million Americans. Splitting hairs over how he died might be an interesting exercise for academics or a convenient tool of anti-American activists, but nothing will change the fact that justice was done.

[Pittsburgh editorial’s Argument]

Americans are a good people. Forgiveness runs deep in their faith traditions and they do not normally revel in the death of even the worst criminals. But they are also a fair-minded and practical people who recognize justice and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.

[NYT column’s Rebuttal]

When Angela Merkel, the German chancellor, said she was glad Bin Laden had been killed, a colleague called such talk medieval. Christophe Barbier, editor of the centrist French weekly L Express, warned: To cry one’s joy in the streets of our cities is to ape the turbaned barbarians who danced the night of Sept. 11. [In fact] Those who celebrated on Sept. 11 were applauding the slaughter of American innocents. When college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere, they were the opposite of bloodthirsty: [In point of fact] they were happy that one of the most certifiably evil figures of our time was no more.
A similar sequence of affiliation can be observed in the *Pittsburgh’s Argument*. The stage begins with proposing the bonds ‘*Praise Americans*’ and ‘*Demonize bin Laden*’ through the couplings positive $\gamma$ *Americans* (in e.g. ‘good people…forgiveness’) and negative $\gamma$ *bin Laden* (e.g. ‘worst…evil’), respectively. Authorial acceptance of these bonds is signalled through inscriptions coupled with monoglossic engagement (e.g. ‘*Americans are good people*’). Next, the writer justifies this acceptance by proposing the bond ‘*Condone Killing*’ through positive $\gamma$ *killing* (provoked in ‘*surgical act…healthier place*’). As in the AGAINST Arguments, consequence conjunction plays an important role in this sequence. In both *USA Today* and *Pittsburgh’s Arguments*, explicit consequence conjunction (realized in ‘*but*’) scaffolds the transition to the justification phase—i.e. the transition to justifying authorial acceptance of the ‘*Condone Killing*’ bond. The phases of the sequence as well as the role of internal conjunction are diagrammed in Figure I.16 below.

<table>
<thead>
<tr>
<th>affiliative sequence</th>
<th>coupling sequence</th>
<th>shifts in identity</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Castigate Other Voices</em></td>
<td><em>Praise Americans</em></td>
<td><em>Other Voices</em></td>
</tr>
<tr>
<td>accept</td>
<td>positive $\gamma$ <em>Americans</em></td>
<td>positive $\gamma$ <em>killing</em></td>
</tr>
<tr>
<td>consequence</td>
<td>negative $\gamma$ <em>matrix</em></td>
<td>hawk</td>
</tr>
<tr>
<td>justify acceptance</td>
<td><em>Condone Killing</em></td>
<td><em>apologist</em></td>
</tr>
</tbody>
</table>

By contrast, in the *NY Times’ Rebuttal* stage, justification of authorial membership to the FOR communities is based on rejecting certain out-group bonds and rationalizing the rejection. The extract above shows that the stage begins with re-
introducing the in-group bond ‘Condone Killing’ and the out-group bond ‘Denounce Americans/U.S’. The first bond is proposed through the coupling positive $\gamma$ killing in ‘glad bin Laden had been killed’. The second is re-introduced through the coupling negative $\gamma$ Americans in ‘to ape the turbaned barbarians’. Both bonds are re-proposed with ‘acknowledging’ engagement as the writer in this phase of justification attempts to disassociate themselves from the two bonds, and gives more dialogic space for alternative proposals. Next, the out-group bond ‘Denounce Americans’ is rejected through the counter-bond ‘Praise Americans ’ proposed through positive evaluations as in ‘spontaneously...opposite of bloodthirsty’. The author proceeds with justifying his rejection through the coupling positive $\gamma$ killing, in which the killing is the Trigger of happiness (‘they were happy’) and security (‘one of...evil figures... was no more’). Moreover, the shift from re-introducing the in-group and out-group bonds to rejecting the out-group one is enabled by implicit comparison conjunction (‘in fact’). This sequence of affiliation is diagrammed in Figure I.17 below.

<table>
<thead>
<tr>
<th>Text Time</th>
<th>affiliative sequence</th>
<th>coupling sequence</th>
<th>shifts in identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDONE KILLING</td>
<td>positive $\gamma$ killing</td>
<td>positive $\gamma$ Americans</td>
<td>apologist vs humanist</td>
</tr>
<tr>
<td>DENOUNCE U.S.</td>
<td>negative $\gamma$ U.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>comparison</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DENOUNCE U.S.</td>
<td>positive $\gamma$ killing</td>
<td></td>
<td>apologist</td>
</tr>
</tbody>
</table>

Figure I.17: sequencing negotiation of bonds in the Rebuttal stages of the FOR article

The ‘justification of belonging’ sequences are visualized in the AppAnn DARs in Figure I.18. In the USA Today’s DAR, the coupling negative $\gamma$ bin Laden is
encoded in the red discs (standing for negative) enclosing red ones (standing for bin Laden) in clauses [9-16]. The grey rectangles encompassing the discs indicate that the coupling instances are presented monoglossically. The next phase is signalled by the coupling \textsf{negative $\mathbb{\gamma}$ voices against} in clause [19]. The coupling is encoded by red discs enclosing yellow ones (standing for ‘voices against killing’). The final phase of the sequence is signalled by the coupling \textsf{positive $\mathbb{\gamma}$ killing} encoded in blue discs (positive) enclosing blue ones (bin Laden’s killing) in clause [20]. The red rectangle encompassing these discs encodes countering engagement, which indicates that the coupling instances are presented as counter-expected. Consequence conjunction linking clause [20] back to [19] is encoded in the red curve connecting the corresponding rectangles.
Figure I.18: DAR visualization of the Argument/Rebuttal stages in the USA Today editorial and NY Times column: the visualization shows the interactions between attitudes, engagement and ideational entities that affiliatively function to justify the writers’ membership to the FOR communities.

In the NY Times’ DAR, the first phase in which in-group and out-group bonds are re-proposed is signalled by the couplings positive $\gamma$ killing and negative $\gamma$ Americans in clauses [23-26]. The two couplings are encoded respectively by a blue disc enclosing another blue (in clause 23) and a red disc enclosing a green one (in clause 26). The blue rectangles encompassing these discs indicate heteroglossic (acknowledging) engagement. The second phase in which the out-group bond is rejected is signalled by the counter-coupling positive $\gamma$ Americans in clauses [28-29]. This coupling is visually...
encoded by blue discs enclosing green ones. Finally, the justification phase starts with the coupling **positive γ killing** encoded in a blue disc enclosing another blue in clause [30]. Comparison conjunction linking clause [30] back to [29] is indicated by the yellow curve connecting the clause rectangles.

### I.2.1.5 REAFFIRMING MEMBERSHIP IN THE FOR COMMUNITIES

As discussed in Chapter 5 (section 5.2.1.5), *Reiteration of Thesis* and *Anti-Thesis* stages serve the affiliation purpose of reaffirming authorial belonging to the ‘humanists against the killing’ community. This is achieved through reasserting rejection of out-group (apologist and hawk) bonds and acceptance of in-group humanist bonds. In the *FOR* subcorpus, coupling patterns suggest the same affiliation process of reaffirming membership, through a sequence of accepted/rejected bonds. This is illustrated in the following extracts.

**[USA Today editorial’s Reiteration of Thesis]**

*What’s not worth fretting over is whether bin Laden was treated properly, in life or in death. [In fact] He was owed nothing but an unpleasant ending.*

**[Pittsburgh editorial’s Reiteration of Thesis]**

*The morality of the moment is clear. [That is] Americans are free to applaud the U.S. forces that bravely did their duty and the commander in chief who wisely sent them into battle to avenge the innocent dead of 9/11.*

**[NYTimes column’s Antithesis]**

*Morally and operationally, this was counterterrorism at its finest. [In other words] We have nothing to apologize for.*

The reaffirmation of authorial membership (to the FOR communities) in the *USA Today*’s *Reiteration* begins with reconfirming the writer’s rejection of the humanist bond ‘Condemn Killing’, through coupling denying engagement with the negative evaluations invoked in ‘fretting over...whether... treated properly’. Next, acceptance of the bond ‘Demonize bin Laden’ is reconfirmed through presenting the coupling
negative γ bin Laden monoglossically in ‘He was owed nothing but an unpleasant ending’. In the Pittsburgh’s Reiteration, reaffirming belonging is achieved through the re-proposal of the hawk bond ‘Praise U.S’. This bond is construed, assuming a compliant reader, by positive evaluations of the U.S in ‘applaud...bravely...wisely’. Authorial acceptance here is signalled by inscribed attitudes and monoglossic engagement. By contrast, reaffirming authorial belonging in the NY Times’ Antithesis starts with a re-proposal of the in-group bond ‘Praise U.S’. This bond is accepted through monoglossic, inscribed attitudes towards the U.S. in ‘this was counterterrorism at its finest’. Then, the writer restates their rejection of the humanist bond ‘Denounce U.S’ (invoked in ‘apologize for’). This rejection is signalled by the lexicalized negation in ‘nothing’.

As an affiliation sequence, reaffirming communal belonging can then be modelled as: reconfirm rejection of out-group bond → reconfirm acceptance of in-group bond in the FOR Reiterations, or reconfirm acceptance of in-group bond → reconfirm rejection of out-group bond in the FOR Anti-Thesis. The transition between these phases is scaffolded by implicit comparison conjunction (e.g. that is, in fact, in other words). The sequence is visualized in the AppAnn DARs in Figure I.19. In the USA Today’s DAR, the first phase of the sequence is signalled by the out-group bond ‘Condemn Killing’ which is proposed through negative γ killing in clause [51]. The coupling is encoded by a red disc enclosing a blue disc, where the orange rectangle encompassing these discs indicates that the coupling occur within a denied proposition. The second phase is signalled by the red disc enclosing another red in clause [52]. The discs encode the coupling negative γ bin Laden through which the bond ‘Demonize bin Laden’ is proposed. The grey rectangle indicates that the bond is offered monoglossically. By contrast, in the NY Times’ DAR, the first phase is signalled by the blue discs enclosing green ones in clause [52], which encode instances of the coupling positive γ U.S. Again, the grey rectangle indicates that the bond ‘Praise U.S’ is proposed monoglossically. In both DAR visualizations, comparison

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7 By using ‘nothing’ (instead of e.g. didn’t, don’t, haven’t etc.) to reject the out-group bond here, the writer renders the rejection monoglossic and, thereby, non-negotiable.
conjunction is represented by yellow curves, connecting clause [52] back to [51] in the USA Today’s, and clause [53] back to [52] in the NY Times’.

Figure I.19: DAR visualization of the Reiteration/Antithesis stages in the USA Today editorial and NY Times column: the visualization shows the interactions between attitudes, engagement and ideational entities that affiliatively function to reaffirm the writers’ membership to the FOR communities.

I.2.2 LOGOGENESIS OF BONDS (VISUALIZING THE LIFE OF A BOND IN THE FOR ARTICLES)

In section 5.2.1.7, we have discussed (and visualized) logogenetic patterns of prominence and commitment associated with the ‘humanists against the killing’ bonds. In this section, prominence and commitment patterns of the ‘for the killing’ bonds will be explored. This is achieved through examining:

i) how prominence of a FOR bond changes during the logogenesis of a text, and how this change impacts the rhetorical strategies deployed by the writers, and

ii) how degrees of propositional and attitudinal commitment vary as a text unfolds to influence the negotiability of the in-group and out-group bonds and to achieve the rhetorical and affiliative objectives of the FOR writers.
Furthermore, AppAnn CircleViews, PRDs and StreamGraphs will be deployed in this section to visualize (and confirm observations about) the logogenetic patterns of couplings and co-selections of ATTITUDES, ENGAGEMENT and ideational entities in the FOR texts.

I.2.2.1 PROMINENCE PATTERNS OF ‘FOR THE KILLING’ BONDS

As shown in the previous sections, the processes of affiliation and rhetorical persuasion in the FOR articles are based on proposing the four in-group bonds (‘Praise U.S’, ‘Castigate Voices AGAINST’, ‘Demonize bin Laden’ and ‘Condone Killing’) and rejecting the out-group humanist bonds. Through the proposal (acceptance and rejection) of these bonds, the writers construct apologist and hawk identities arguing for (and approving) bin Laden’s killing. Logogenetically, however, each bond shows a unique prominence pattern. In other words, each bond plays a different ‘dynamic’ role in shaping the FOR identities and constructing ‘for the killing’ communities during the unfolding of text.

As shown in Chapter 5 (section 5.2.2), frequency patterns of key evaluative couplings can reflect the prominence variations of the proposed bonds as we move from one stage to the next. To illustrate this, Figure I.20 show variations of bond ‘relative’ frequencies in the Pittsburgh exposition. From these variations, it can be noted that the frequencies of the bond ‘Praise U.S’ fluctuate irregularly in the article, as the relative frequencies of positive U.S increase and decrease sporadically throughout the stages. This highlights the supportive role of the bond in the overall affiliation process of the text. For instance, in the Headline, the bond supports the ‘Demonize bin Laden’ bond to establish the ‘for the killing’ community (as in e.g. ‘justice is done’).

In the Reiteration of Thesis, the ‘Praise U.S’ bond mainly supports the bond ‘Condone Killing’ in re-affirming authorial belonging to the FOR communities (as in e.g. ‘Morally and operationally, …counterterrorism at its finest’), and so forth. The ‘Demonize bin Laden’ bond, by contrast, only appears prominent in the Arguments.

8 This can be read both as an invoked positive evaluation of the killing (‘killing is just’) and as an invoked positive evaluation of the U.S (‘the U.S brought justice’).
particularly Argument 2, where the frequency of negative \( \gamma \) bin Laden culminates. This underlines the key role of this bond in justifying the writer’s belonging to the FOR communities, as the writer is bidding to align readers with the view that ‘the killing is (and should be) approved because bin Laden is evil’. Interestingly, when this bond starts losing its prominence in Argument 3, the bond ‘Praise U.S’ starts gaining prominence again. This pattern foregrounds the ‘us versus them’ dichotomy on which the writer bases their arguments for the killing. As a brief example, where instances of negative \( \gamma \) bin Laden & Al-Qaeda in Argument 2 are relatively frequent (as in e.g. ‘their leader offered the terrorists’; ‘attack America...always been their vowed intent’), in Argument 3 occurrences of positive \( \gamma \) U.S & Americans are more frequent (as in e.g. ‘...good people; forgiveness runs deep in their faith; practical people’). Finally, the frequency patterns of the coupling positive \( \gamma \) killing show that ‘Condone Killing’ is notably prominent in the Orientation and Thesis stages. Consequently, an important affiliative role of this bond is to affirm the writer’s membership to the ‘for the killing’ community and to define communal boundaries when ‘other’ AGAINST communities are first introduced.
Figure I.20: prominence logogenetic patterns of the four ‘for the killing’ bonds in the Pittsburgh exposition. Frequencies are re-encoded by transparency: the more transparent an icon, the less frequent the bond it represents at a given stage, and vice versa.

In Figure I.21, the AppAnn CircleViews (discussed in section 4.3.7) visualize the prominence patterns discussed thus far, and show that comparable patterns can also be observed in the USA Today’s exposition. In both CircleViews, olive colour saturations, which encode relative frequencies of positive U.S & Americans, indicate that ‘Praise U.S’ exhibits an ‘erratic’ pattern of prominence, as the bond is proposed and negotiated scatteredly in the texts. The bond ‘Demonize bin Laden’ shows a brusque pattern of orange saturations (i.e. sudden increases of frequency), where it peaks in Argument 2 of the Pittsburgh editorial and in Argument1 of the USA Today editorial. The CircleViews also confirm that condoning the killing (encoded in cyan saturations) is significantly prominent in the Orientation and Thesis of both articles, where the writers affirm belonging to the FOR communities and set communal boundaries as AGAINST communities are recognized. Furthermore, the saturations of the out-group bonds ‘Condemn Killing’(pink) and ‘Denounce U.S’(blue) exhibit a ‘brusque’ pattern. That is, these bonds are introduced promptly, mostly in the Arguments with temporary prominence, and only to be rejected as discussed in the
previous section. Interestingly, in the AGAINST articles, the same ‘brusque’ patterns of the out-group bonds ‘Condone Killing’ and ‘Complicate Capture’ can be observed in the AGAINST CircleViews in Chapter 5 (Error! Reference source not found.).

Figure L.21: AppAnn CircleViews of the FOR exposition: the saturation patterns indicate that, in both articles, ‘Demonize bin Laden’ exhibits an fade-in/fade-out pattern, whereas ‘Praise U.S’ shows an erratic pattern. Furthermore, the out-group bonds ‘Condemn Killing’ and ‘Denounce U.S’ show a ‘brusque’ pattern.
The AppAnn CircleViews of the FOR challenge (the *NY Times* column) display some distinct prominence patterns. As shown in Figure I.22, the saturations of the in-group bonds ‘Condone Killing’ (in cyan) and ‘Demonize bin Laden’ (in orange) manifest what I referred to in section 4.3.7 as a ‘serene’ pattern (i.e. consistent medium or low frequencies with no or few gaps). This suggests that the proposal of these two bonds stretches over the whole text as their prominence is evenly distributed over almost all logogenetic moments. In addition, similarities between the bonds’ saturation values in most moments indicate that the two bonds tend to be coupled together (i.e. proposed and negotiated together) as the text unfolds. For instance, in the *Orientation*, positive evaluations of the killing and negative evaluations of bin Laden are proposed simultaneously as in ‘when you’re dealing with a mass murderer...that seems like the only civilized and morally sound response’. Similarly, in the *Rebuttals*, the two couplings tend to be ‘co-proposed’ as in ‘they were happy that one of the most certifiably evil figures of our time was no more’. That is, basing the rightfulness of the killing on the evilness of the victim seems to be a consistent rhetorical pattern in the whole text, and not restricted to the *Argument/Rebuttal* stages as in the FOR expositions. Finally, the humanist bonds ‘Advocate Capture’ and ‘Condemn Killing’ in this article also show a ‘brusque’ pattern—they are introduced promptly only to be rejected (as in e.g. ‘Liberal guilt may have its uses, but it should not be on this kill-mission’ where the ‘Condemn Killing’ is offered in ‘liberal guilt’ but rejected through denying engagement ‘...not be’).
Figure I.22: AppAnn CircleViews of the FOR challenge: the saturation patterns indicate that the bonds ‘Demonize bin Laden’ and ‘Condone Killing’ exhibit a serene pattern. Furthermore, the out-group bonds ‘Condemn Killing’ and ‘Advocate Capture’ show a brusque pattern.

1.2.2.2 NEGOTIABILITY AND COMMITMENT PATTERNS OF ‘FOR THE KILLING’ BONDS

The discussion of synoptic patterns in section I.1 suggests that the key bonds in the FOR subcorpus are associated with varying degrees of authorial commitment. More specifically, the ‘Praise U.S.’ and ‘Condone Killing’ bonds are mainly proposed with high degrees of both propositional and attitudinal commitment, rendering them non-negotiable (through monoglossic engagement) and unequivocal (through inscriptions). By contrast, while the bonds ‘Demonize bin Laden’ and ‘Castigate Other Voices’ are also associated with high propositional commitment, they tend to be proposed with low degrees of attitudinal commitment. That is, although the two bonds are presented as non-negotiable, the writers (through invocations) depend on the compliant audience’s (pre-established) values to interpret the evaluations involved as negative, and thereby to accept the bonds. However, from a dynamic perspective, degrees of authorial commitment vary from one stage to another, resulting in distinct...
logogenetic patterns of negotiability and stability of key evaluative couplings (as well as the bonds they propose).

As in the AGAINST articles, the logogenesis of attitudinal commitment in the FOR texts seems dependent on text-type and generic structure. More specifically, in the FOR expositions (*Pittsburgh* and *USA Today* editorials), evaluations in the *Headline, Thesis* and first *Arguments* tend to be associated with low degrees of attitudinal commitment. In late *Arguments* and *Reiteration of Thesis*, evaluations are more associated with high attitudinal commitment. As a result, the bonds proposed through these evaluations are more open to readers’ interpretation in the early stages of the text, but less open to interpretation in late stages. In the *Pittsburgh* editorial, for instance, the bond ‘Praise U.S’ is proposed with low attitudinal commitment in the *Headline* as the positive evaluation in ‘justice is done’ is invoked. In the *Thesis* and initial *Arguments* stage, positive evaluations of the U.S are also mainly invoked as in e.g. ‘justice was meted out by Navy SEALs in a foreign country’ and ‘buried at sea by his U.S conquerors’. In late *Arguments* and *Reiteration*, the coupling *positive y U.S* is increasingly inscribed as in ‘commander in chief who wisely sent them’ and ‘U.S forces who bravely did their duty’. Another example is the bond ‘Condone Killing’ in the *USA Today* editorial. In the *Headline* and *Thesis*, the bond is proposed with low attitudinal commitment as the coupling *positive y killing* is mostly invoked (e.g. ‘what he deserved; deserved to die by any means necessary’). In late *Arguments* and *Reiteration*, the coupling is mainly inscribed as in e.g. ‘shooting to kill was the reasonable choice’ and ‘a well-considered choice’.

This pattern of attitudinal commitment in the FOR expositions also suggests a gradual shift from invocation to inscription and thereby from low commitment to high commitment during the logogenetic time of text. This concurs with Sano’s (2008) observation in Japanese editorials (discussed in Chapter 3, section 3.2.1). The use of invoked attitudes in early stages of the texts is intended to reduce the tension between the need to propose the FOR bonds (e.g. ‘Condone Killing’) and the avoidance of offending ‘humanist’ readers who may not be willing to accept them. From an affiliation perspective, the non-negotiability of the bonds and their core-ness within the FOR communities can be said to increase ‘linearly’ as the texts unfolds towards the end. This is illustrated in the AppAnn StreamGraphs given in Figure I.23. Here,
the height of the blue stream which represents frequencies of attitude invocations is relatively large at the early stages of the USA Today editorial, while the height of the green (inscription) stream is considerably low. From Argument 3 onwards, the blue stream slowly gets smaller as occurrences of invocations becomes less frequent, whereas the green stream becomes larger as occurrences of inscriptions get more frequent.

In the FOR challenge (NY Times column), attitudinal commitment shows a markedly different pattern. In particular, all stages, except first and last Rebuttals, are strongly associated with high attitudinal commitment. Rebuttals 1 and 4\(^9\), by contrast, are more correlated with low degrees of attitudinal commitment. That is, negotiability and core-ness of the key FOR bonds seems only at stake (and open to readers’ interpretation) when the writer opens and closes their argumentation. As an example, the bond ‘Praise U.S’ is proposed with maximum attitudinal commitment in the Orientation (e.g. ‘clear-cut military victories’; ‘smart, strong and capable’), Rebuttal 3 (e.g. ‘Navy SEALs who performed with steely finesse’), and Anti-Thesis (e.g. counterterrorism at its finest’). In the opening and closing Rebuttals the bond is

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\(^9\) The first and last rebuttals can be seen as roughly equivalent to the Initiation of Argumentation and Closure of Argumentation in Ansary & Rabaii (2005), Shokouhi & Amin (2010) and Fartousi & Dumanig (2012) (discussed in Chapter 3, section 3.1.3)
offered with less attitudinal commitment as positive U.S is coupled with invocation in e.g. ‘Seals took great care not to harm civilians’ and ‘[Seals] carried two young girls out of harm’s way’. In doing so, the writer provides readers with more freedom to interpret the instances according to their ideological orientations, and thereby, increases the bond’s negotiability at the beginning and end of the ‘justifying belonging’ process.

These patterns of attitudinal commitment in the FOR articles are visualized by the AppAnn PRDs10 in Figure I.24. The visualization foregrounds the previous observation that only late Arguments and Reiterations of the FOR expositions are correlated with inscribed attitudes. This is visually encoded by the green colour of the boxes representing these stages. As the remaining stages are more associated with invocations, their corresponding boxes are given a blue colour. In the NY Times’ DAR, colour patterns show that only the first and last Rebuttals are correlated with invocations (as indicated by blue boxes), while other stages are mainly associated with inscriptions. Furthermore, transparency patterns of the curves suggest that Theses in the FOR exposition are relatively more associated with invocation than Headlines or Arguments (as the blue curves are darker around the Thesis boxes). In other words, evaluative couplings are more equivocal and subject to readers’ interpretation (and thus less offensive to ‘others’) during the process of ‘recognizing AGAINST communities’.

\[\text{Again, since our concerns are with associations between choices of ATTITUDE EXPLICITNESS and generic stages, AppAnn PRD is the ideal visualization here.}\]
Figure I.24: AppAnn PRDs of correlations between generic stages and explicitness in the FOR articles: the PRDs show that in the FOR expositions (NYTimes, Pittsburgh, and USA Today), inscribed attitudes (encoded in green) are seemingly associated with late Arguments and Reiteration/Anti-Thesis. By contrast, invoked attitudes (in blue) are more correlated with all early stages in the expositions.

Whereas attitudinal commitment patterns in the FOR expositions differ markedly from those in the FOR challenge, propositional commitment patterns are remarkably comparable in both. In particular, the Reiteration of Thesis and Anti-Thesis are both correlated with high degrees of propositional commitment. Headlines, Thesis/Position Challenged and most Arguments/Rebuttals are more associated with low propositional commitment. That is, while the writers ‘engage’ with other voices in most logogenetic moments, they tend to close down the space for alternative positions towards the key ideational entities in the last moments. Consequently, the non-negotiability and core-ness of the bonds proposed during the ‘reaffirming membership to the FOR communities’ process tend to maximized. As an example, in the NY Times challenge, the bond ‘Condone Killing’ is proposed with low
propositional commitment by coupling positive γ killing with heteroglossic engagement in the Orientation (e.g. ‘that seems like the only civilized and morally sound response’), and in the Rebuttals (e.g. ‘said she was glad bin Laden had been killed’; ‘said he was much relieved at the news of bin Laden’s death’). In the Anti-thesis, the bond is proposed with maximum propositional commitment as positive γ killing is coupled with monoglossic engagement (in e.g. ‘morally and operationally, this was counterterrorism at its finest’). Similarly, the bond in the Pittsburgh editorial is proposed with low propositional commitment in the Orientation (e.g. ‘but it is a great victory nonetheless’), in the Thesis (e.g. ‘said... “Justice has been done”’), and the Arguments (e.g. ‘will rightly see the death...as a surgical act’). In the Reiteration, the bond is proposed with high propositional commitment as in e.g. ‘the morality of the moment is clear’ and ‘sent them into battle to avenge the innocent dead of 9/11’.

These patterns of propositional commitment are visualized in the AppAnn DARs in Figure I.25. As the Headlines, Thesis and Arguments 3-5 are strongly correlated with heteroglossic engagement, the boxes representing these stages are given a red colour. The grey colour of the Reiteration’s box indicates that the stage is mainly monoglossic. Similarly, the red colour of the Headline, Orientation, Position Challenged and Rebuttals 1&3 boxes indicates the strong association between these stages and heteroglossic engagement. Again, the grey colour of the Anti-Thesis’ box suggests its correlation with monoglossia.

11 These examples are analysed as positive evaluations of the killing since the ‘killing’ is a Trigger of happiness.
Figure I.25: AppAnn PRDs of correlations between generic stages and the least delicate choices of ENGAGEMENT in the FOR articles: the PRDs show while Headlines, Orientation, Thesis/Position Challenged and most Arguments are correlated with heteroglossic engagement, the Reiterations/Anti-Thesis are more associated with monoglossic engagement.

In closing, Figure I.26 summarizes patterns of attitudinal and propositional commitment in the FOR articles. As far as logogenetic correlation between the two types of authorial commitment is concerned, the diagram points out a strong positive correlation in the FOR expositions. More specifically, the Headline, Thesis and Arguments are associated with low degrees of both attitudinal and propositional commitment, whereas the Reiteration is associated with high degrees of both. Rhetorically, this indicates that choices of ENGAGEMENT and EXPLICITNESS work synergistically during the logogenesis of texts. In the first stages, the choices work together to maintain solidarity with resistant readers and admit the problematic nature of the values being ‘naturalized’ by the texts. In the final stage, ENGAGEMENT and
EXPLICITNESS also work together to fend off alternative positions towards these values and re-propose the authorial position as dialogically unproblematic. Affiliatively, low propositional and attitudinal commitment enhances the negotiability of the bonds as they are being proposed during the processes of establishing the FOR communities, setting communal boundaries and recognizing the AGAINST communities. High degrees of both propositional and attitudinal commitment, by contrast, reduces the inter-communal negotiability of the FOR bonds as the writers re-affirm their belonging to the FOR majority. In the FOR challenge, the two types of commitment are inversely correlated (i.e. when attitudinal commitment is low, propositional commitment is high, and vice versa), in all the stages except the Orientation. As suggested in Chapter 5 (section 5.1.1), an apparent rhetorical function of inversely correlated degrees of commitment is to balance risks to solidarity with resistant readers that are posed by inscribed attitudes or monoglossic propositions. For instance, in Rebuttal 1, low propositional commitment towards positive evaluations of the killing in ‘said he was much relieved at the news of bin Laden’s death’ reduces the threat to solidarity posed by the underlined inscription. In the Orientation stage, where the writer attempts to affirm their membership to the FOR community, authorial commitments are correlated (as in ‘made us feel like Americans again smart and strong’), rendering the proposal of FOR bonds far less negotiable, and endangering solidarity with resistant readers for the sake of a sense of belonging.
Figure I.26: A topological perspective summarizing degrees of propositional and attitudinal commitment towards key evaluative couplings (and bonds) in a) the FOR exposition stages, and b) the FOR challenge.
II.1 THE BIN LADEN KILLING CORPUS

II.1.1 AGAINST THE KILLING ARTICLES

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**How Osama bin Laden perverted US justice**

*Karen Greenberg*

*theguardian.com, Tuesday 3 May 2011 00.30 AEST*

Osama bin Laden's death removes the single focal point that has dominated American foreign affairs – and much of American politics at home – for a decade. And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered. But the removal of bin Laden also opens up some space for thinking – not just for perpetual reaction, which has been the singular characteristic of the American version of the "war on terror".

It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice.

At the heart of the rhetoric justifying and explaining our policies has been the notion of justice. In the decade since 9/11, the word has been used to mean many things, including revenge, retaliation, punishment and even healing. So it was used by President Bush when he told the nation and the world, time and time again, that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice. And in Sunday night's statement, President Obama labelled the killing of bin Laden as a moment of justice as healing.

What we need to remember, though, is that the effect of bin Laden's reign of terror on
the notion of justice was to pervert it. Under the rubric of fighting terror, the United States rolled back its hallowed notions of civil liberties, its embrace of modernity, and even its reliance on its own courts. We delved into medieval-style torture, we reneged on our courts as a viable option for trying terrorists, and we blindly took aim at a religion, rather than its disaffected hijackers.

It is not surprising – but needs to be noted – that bin Laden was killed in a gunfight. The order was to kill not capture, even in a face-to-face encounter, which this apparently was. We thus forfeited the right to parade his excesses to the world at large – including to the thousands of Muslims whose family members have been killed by al-Qaida attacks. We ran, knowingly, from the chance to hold him in custody, and to punish him by due process and make him account to the world for what he has done.

This, then, was the inevitable ending to the way the United States has chosen to conduct this war. Bin Laden was an enemy so dreaded and so feared that his killing by military execution was the only possible end for a country that had given up so much of itself in his name. This was not a criminal, it was judged, that our courts, even after ten years, could handle. This was not an enemy whose fate the United States wanted to debate with the world and in the world's criminal courts. His killing put an end to innumerable conversations that would, arguably, have continued to confound nations and their citizens. In his death, as in his life, we followed his lead when it came to thinking about justice.

There is no denying that bin Laden's death is the end of the menace of al-Qaida as we know it: that without his leadership, a diffuse network, frayed at the edges by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray. But a word of warning may be in order. Many of the pundits and politicians today are warning us not to let our guard down, to beef up security, to remember to be ever-vigilant – even if the immediate menace in our sights has been vanquished.

This is a version of the refrain that has marked the decade since 9/11: in fear, in hatred, in revenge, we need to fortify ourselves by forsaking many of our ideals. With
this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles, whether it's on the matter of torture, of detention or of war without end.

Perhaps, in sending bin Laden's body into the waters of the ocean, we should consider sending all that he represented to us to the bottom of the sea as well. Perhaps we could, in his absence, remember once again who we are, and begin to rebuild our confidence in ourselves – starting with our system of justice.

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**The USA Today column**


**Opposing view: 'He should have been taken alive'**

*By Goeffrey Robertson*

*Updated 5/4/2011 9:44 PM*

Progress towards a better world requires the acceptance of certain universal standards. The "right to life" endorsed by every human rights treaty protects individuals — even the worst man in the world — from being arbitrarily killed by a government or its agents. That is why there must be a proper inquest into the U.S. killing of Osama bin Laden to determine whether it was done in self-defense or was a summary execution.

The operation itself was undoubtedly lawful. Not for the reason the attorney general gives ("national self-defense"), because bin Laden posed no immediate danger to the U.S. But because the incursion on Pakistan sovereignty was necessary to apprehend an international criminal whom that country had failed, through incompetence or connivance, to capture.

However, the U.S. was not entitled to mount a "kill operation." The law only permits criminals to be shot if they or their accomplices pose an immediate risk to life. Otherwise, they must be taken alive. It does not matter at all whether bin Laden
refused to put his hands up in surrender; the only question is whether it was necessary for the SEALs to kill him to protect their own lives.

It is nonsense to say "justice is done." This is a misuse of the word "justice," which requires a fair trial before an independent court. It would have been far better to demystify bin Laden by having this hateful and hate-filled man screaming from the dock or lying from the witness box rather than making him a martyr by killing him without trial.

Ironic, isn't it, that the U.S. has given bin Laden the death he most craved? In his crazy belief system, he wanted the fast-track to paradise obtained through death by an American bullet. The thing that most terrified him was being put on trial, so obviously he would have refused to surrender — in which case, he should have been taken alive and subjected to a legal process that would have caused him much more pain than the instant oblivion he received.

So killing instead of capturing bin Laden was a missed opportunity to prove to the world, and especially to the people currently rising up against tyrannies in Arab countries, that bin Laden was a false prophet with an inhuman and worthless cause.


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Let's be clear: Osama bin Laden was executed – and for good reason

By Boris Johnson

10:27PM BST 08 May 2011
Well, that's handy. We have all just learnt some useful etiquette about how to greet US Navy Seals arriving unexpectedly in your house when you have just gone to bed. If you find yourself lying there with your wife, just after turning off the lights, and there is a terrific racket from downstairs, you need to follow these essential dos and don'ts.

If the ninja-clad gunmen start charging up the stairs and shooting up your relatives, you are perfectly entitled to stick your head out of your bedroom door and have a gander. You may gawp in horror as a bullet whangs into the plaster near your ear. But if you try to dodge the next bullet, I am afraid you may be deemed to have committed a "hostile act". If you are so rash as to duck back into your bedroom, you will apparently entitle the Seals to follow you into the matrimonial chamber, shoot your wife in the leg and then blow you away with a shot in the chest and the head.

Yup, it was Osama bin Laden's "hostile act" of bullet-dodging that cost him his life, says the White House. If he had only stayed out there on the landing and taken the next bullet square on the mazzard, he would have been beyond suspicion, it seems. As an explanation for killing an unarmed man, this is starting to get embarrassing. I am reminded of the old South African police force, who used to explain deaths in custody by saying that their unarmed black detainees had launched savage attacks with their left temples and the smalls of their backs on the steel toecaps of their guards.

So why don't we all just cut the cackle and admit the groaningly obvious. It is perfectly clear why the US will not release the video footage they were all watching in the White House, and that caused Hillary to press her knuckles to her mouth. There was no firefight. Osama bin Laden did not cower behind his wife, spraying the US troops from his AK-47 like some scene from Call of Duty: Black Ops. That was a lie that went round the world faster than it took the truth to get its boots on, and the truth was that bin Laden hadn't even got his dressing gown on, let alone his boots, before he was despatched into the arms of Shaitan.

This was an assassination, a liquidation, an extra-judicial killing and a termination
with extreme prejudice. Whichever way you look at it, President Obama has carried out one of the most effective whack jobs ever seen, and if he doesn't get re-elected I will be amazed. Osama is a has-bin, who sleeps with the fishes of the North Arabian sea, and it couldn't have happened to a nicer guy.

But when the president tells us that "justice has been done", I think he needs to be a bit fuller in his definition of "justice". It was 10 years ago this December, when the net was closing in on bin Laden in Tora Bora, that I wrote a pious piece in this very space, urging that the mass murderer should be put on trial. Read him the Miranda, give him his two telephone calls, and then arraign him for multiple homicide in New York and around the world.

It may be painful and problematic, I argued, but that is the difference between them and us. It's civilisation versus barbarism, the rule of law versus the law of the jungle. It's what we're fighting for. Fiat iustitia, ruat coelum, I said; and 10 years on I have to admit I can see why the Americans have not found it easy to follow my advice. Having pinpointed his lair, they could hardly have asked the Pakistanis to put him on trial – not when the Pakistani security services seem to be some kind of affiliate of al-Qaeda. They couldn't hold the trial in the Hague, since the US does not recognise the jurisdiction of the International Criminal Court.

In an ideal world, they would have put him on trial in NYC, the place of his greatest crime. And then what? A secret trial would have been deemed suspicious; so we would have endured a long, show-boating courtroom drama, with lawyers from the school of the OJ Simpson defence trying to cast doubt on any connection between the accused and 9/11, and the cameras of the world would have been trained for weeks on the noble and priestly features of the accused, as he subjected America and her allies to some of his finger-wagging denunciations.

Though a New York jury would certainly have sent him down, they don't have the death penalty there – and so his place of incarceration would have become a shrine, the nearby pavements covered with the wax of cretinous candlelit vigils. Having been completely obscured by the events of the Arab spring, al-Qaeda would be back on the
airwaves recruiting again – and that is perhaps where the Americans could mount a legitimate argument for what they have done. Bin Laden may represent a threat to US interests whether he is dead or alive, but the reality is that he is much less of a threat in his current subaquatic position than he would be in either a courtroom or a prison.

In so far as President Obama has a duty to protect America and Americans, he almost certainly has the necessary legal cover, provided by Congress, to remove bin Laden from the scene by any means at his disposal, and that is what he has triumphantly done. As an argument, it is not without its difficulties. If America is to go around indulging in extra-judicial liquidation of anyone who poses a threat to American interests, then we are entitled to wonder where it will end. We may be worried that the enemies of America may be spurred to symmetrical retaliation and that we will be caught up in a cycle of killing and counter-killing.

But it is at least plausible, and emotionally convincing, to say Osama bin Laden was a clear and present danger to America; he had it coming, and the president had him killed. All I ask is that we stop pussy-footing around about "hostile acts" and accept that this was an execution.

The Montreal Gazette editorial

Osama bin Laden's death was murder, plain and simple.


On Sunday, U.S. President Barack Obama announced that U.S. Navy SEALs had killed Osama bin Laden, and Americans rejoiced. They took to the streets in Washington and elsewhere in the country chanting "U.S.A., U.S.A" following Obama's pronouncement that justice had been done.
But had it?

It is a complex question with a complex answer, but one that must be addressed. After all, the security of our democracies is based on the rule of law. The U.S. is claiming it was a lawful act, but a closer look at the incident proves them wrong. The evidence so far indicates that the U.S. murdered Osama.

The most obvious breach of international law perpetrated by the U.S. is the Americans’ entry into Pakistan, which has since claimed it knew nothing about the operation. If true, the U.S. would have violated international law simply by sending its forces into Pakistan. A state's sovereignty is absolute; no other country’s armed forces can enter without authorization.

The killing would be lawful if it occurred during an armed conflict and if bin Laden was a combatant taking part in the armed conflict. Armed conflicts, both internal and international, are governed by international humanitarian law (IHL), which applies regardless of the legality of the war. An international armed conflict is one that takes place between two states, and an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists.

In both cases, IHL forbids the killing of non-combatants. The International Committee of the Red Cross, the organization responsible for the rules of IHL, defines a non-combatant in an international armed conflict as a person who is not a member of the state’s armed forces. In an internal armed conflict, a non-combatant is a person who is not a member of the state’s armed forces or a member of an armed group. An individual is a member of an armed group if his or her continuous function is to take part in the conflict.

Because the killing took place in Pakistan, the U.S. can hardly argue that the act occurred as part of an international armed conflict since it is not, and does not claim to be, at war with Pakistan. Although some people may argue that the killing took place as part of the "war on terror," terror is clearly not a state. And while the Navy
SEALs are an armed group, it would be difficult to argue they were taking part in an internal armed conflict in Pakistan.

Al-Qa'ida, of which bin Laden was the leader, could, however, be considered an armed group. If we argue that America was in the midst of an armed conflict with Al-Qa'ida when it killed bin Laden, then the next step is to examine the killing itself. As I stated earlier, IHL forbids the killing of all noncombatants. Bin Laden could be considered a combatant as a member of Al-Qa'ida. That being said, even if a person is considered a combatant under IHL, you can't just walk up and shoot him or her.

The problem with this argument is that the war on terror is not, legally speaking, a war. It is an ambiguous state of affairs that escapes any legal definition yet seemingly allows the U.S. government to kill or arrest whomever it chooses. For example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war, and then having to abide by the rules of IHL concerning their treatment, the U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees. These terms are not found in international law.

There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942. The U.S. put out an arrest warrant against bin Laden in 2000. The U.S. could easily have either asked Pakistan's permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him. However, if Pakistan refused both requests, then the U.S. would have no legal recourse. That is where the law has its limits.

The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009, but to no avail because his country is keeping him safe. Spain also fought for two years to have Chilean General Pinochet extradited from Britain to Spain to face charges, but Britain refused and eventually allowed Pinochet to return home. In neither case did armed forces enter another state's territory to arrest or kill the accused.

When we look at the facts, Obama sent his Navy SEALs into another state's territory
with the order to kill a man. They claim he resisted arrest, but admit he was unarmed. They managed to arrest the other members of his family present in the compound.

The law changes constantly, and perhaps new laws will be written that will better frame this so-called "war on terror." But when you look at the laws of today, the U.S. committed murder, plain and simple.

II.1.2 FOR THE KILLING ARTICLES

The NY Times column
http://www.nytimes.com/2011/05/08/opinion/08dowd.html?_r=0

Killing Evil Doesn’t Make Us Evil

*By MAUREEN DOWD.*

*Published: May 7, 2011.*

I want memory, and justice, and revenge.

When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more, that seems like the only civilized and morally sound response.

We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again — smart and strong and capable of finding our enemies and striking back at them without getting trapped in multitrillion-dollar Groundhog Day occupations.

But within days, Naval Seal-gazing shifted to navel-gazing.

There was the bad comedy of solipsistic Republicans with wounded egos trying to make it about how right they were and whinging that George W. Bush was due more credit. Their attempt to renew the debate about torture is itself torture.

Whereas the intelligence work that led to the destruction of Bin Laden was begun in the Bush administration, the cache of schemes taken from Osama’s Pakistan house debunked the fanciful narrative that the Bush crew pushed: that Osama was stuck in a
cave unable to communicate, increasingly irrelevant and a mere symbol, rather than operational. Osama, in fact, was at the helm, spending his days whipping up bloody schemes to kill more Americans.

In another inane debate last week, many voices suggested that decapitating the head of a deadly terrorist network was some sort of injustice.

Taking offense after Ban Ki-moon, the United Nations secretary general, said he was “much relieved” at the news of Bin Laden’s death, Kenneth Roth, the executive director of Human Rights Watch, posted the Twitter message: “Ban Ki-moon wrong on Osama bin Laden: It’s not justice for him to be killed even if justified; no trial, conviction.”

I leave it to subtler minds to parse the distinction between what is just and what is justified.

When Angela Merkel, the German chancellor, said she was “glad” Bin Laden had been killed, a colleague called such talk “medieval.”

Christophe Barbier, editor of the centrist French weekly L’Express, warned: “To cry one’s joy in the streets of our cities is to ape the turbaned barbarians who danced the night of Sept. 11.”

Those who celebrated on Sept. 11 were applauding the slaughter of American innocents. When college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere, they were the opposite of bloodthirsty: they were happy that one of the most certifiably evil figures of our time was no more.

The confused image of Bin Laden as a victim was exacerbated by John Brennan, the Obama national security aide who intemperately presented an inaccurate portrait of what had happened on the third floor in Abbottabad.

Unlike the president and the Navy Seals, who performed with steely finesse, Brennan was overwrought, exaggerating the narrative to demonize the demon.

The White House had to backtrack from Brennan’s contentions that Osama was “hiding behind women who were put in front of him as a shield” and that he died after resisting in a firefight.

It may be that some administration officials have taken Dick Cheney’s belittling so much to heart that they are still reluctant to display effortless macho. Liberal guilt may have its uses, but it should not be wasted on this kill-mission.

The really insane assumption behind some of the second-guessing is that killing Osama somehow makes us like Osama, as if all killing is the same.

Only fools or knaves would argue that we could fight Al Qaeda’s violence non-violently.
President Obama was prepared to take a life not only to avenge American lives already taken but to deter the same killer from taking any more. Aside from Bin Laden’s plotting, his survival and his legend were inspirations for more murder.

If stealth bombers had dropped dozens of 2,000-pound bombs and wiped out everyone, no one would have been debating whether Osama was armed. The president chose the riskiest option presented to him, but one that spared nearly all the women and children at the compound, and anyone in the vicinity.

Unlike Osama, the Navy Seals took great care not to harm civilians — they shot Bin Laden’s youngest wife in the leg and carried two young girls out of harm’s way before killing Osama.

Morally and operationally, this was counterterrorism at its finest.

We have nothing to apologize for.

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The Pittsburgh Post-Gazette editorial

Justice is done: Osama bin Laden is paid back in his own coin

May 3, 2011 12:00 AM

In an undeclared war against shadowy foes, the long years of the fight do not often give the nation a moment of victorious exultation. But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment.

Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news, this isn't like August 1945 when the announcement of Japan's surrender led to unbridled joy across the country. The celebration then was about an end to the killing.

No such hope graces the celebration now, but it is a great victory nonetheless -- and something more than that. As President Barack Obama said late Sunday from the White House, "Justice has been done." Americans have waited 10 years for this day and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil. That justice was meted out by Navy SEALs in a foreign country, without U.S. casualties, is an added satisfaction.

Something that seemed in short supply, good military intelligence, paved the way for American courage and expertise to do its job. As no other way could have done, the terrorists of al-Qaida have been put on notice. Their leader is dead. Buried at sea by his U.S. conquerors, he leaves no shrine where followers might worship him. They are left with even more reason to be looking over their shoulders.
Discouragement is al-Qaida’s alone. Still, in warning against reprisals, CIA Director Leon Panetta said, “Bin Laden is dead. Al-Qaida is not.” That is a timely caution and an invitation to renewed vigilance, but not an excuse to be fearful.

While the effect of bin Laden’s death on al-Qaida’s operational capacity remains unclear, the deathblow to their leader offered the terrorists no new excuse to attack America. That has always been their vowed intent. In that regard, nothing has changed. For their part, the Pakistanis have some explaining to do. What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions and debate.

Americans are a good people. Forgiveness runs deep in their faith traditions and they do not normally revel in the death of even the worst criminals. But they are also a fair-minded and practical people who recognize justice and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.

The morality of the moment is clear. Americans are free to applaud the U.S. forces who bravely did their duty and the commander in chief who wisely sent them into battle to avenge the innocent dead of 9/11.

The USA Today editorial

Our view: Armed or unarmed, bin Laden got what he deserved

Posted 05/04/2011 09:38:24 PM

Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death — and not, as initially reported, brandishing a weapon and hiding behind a woman? In a word, no.

Whether judged by the formal rules of war, the pragmatic need to eliminate a threat or a gut-level hunger to deliver justice for the mass murder of 9/11, bin Laden deserved to die by any means necessary.

Still, a few voices are calling for an inquiry into how bin Laden was killed and questioning whether he could, and should, have been captured alive and put on trial. The facts, the law and circumstances of the operation should put those questions to rest.

Bin Laden declared war on the U.S. in a fatwa in 1996. Two years later, he attacked two U.S. Embassies in East Africa, killing 220 people, including a dozen Americans; he followed up in 2000 with an attack on the USS Cole, killing 17 sailors. Then he engineered the incredible slaughter of 9/11. And in his sick mind that was just a
warm-up. He said he wanted to kill 4 million Americans.

Splitting hairs over how he died might be an interesting exercise for academics or a convenient tool of anti-American activists, but nothing will change the fact that justice was done.

Nor do the circumstances suggest any impropriety. When Navy SEALs, adrenalin pumping, burst into bin Laden's Pakistani lair on Sunday night, they faced gunfire. They shot their way upstairs and into a room with the terrorist leader. They couldn't have known whether he had a hidden weapon, a suicide vest or a switch to blow them all away. Shooting to kill was the reasonable choice.

If legal justifications are needed, they, too, are on the government's side. On Sept. 18, 2001, Congress authorized the president to use "all necessary and appropriate force against those" who plotted and carried out the 9/11 attacks, essentially a declaration of war. Shooting a lawful target — and who more than bin Laden would qualify? — is legal under international law except when that target is surrendering. Short of lying on the ground and waving a white flag, bin Laden was fair game.

Some Muslim clerics are also complaining that bin Laden's burial did not comply with Islam's rules. In fact, he was treated with far more respect in death than he ever showed to the living — swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice. Again, a well-considered choice. Any gravesite could have become a terrorist shrine.

The only tough call is whether to release a photo of bin Laden's corpse to prove he's dead.

Doing so would not silence the skeptics, as President Obama said Wednesday in an interview with CBS explaining his decision keep the photo private. The question is whether its release would hurt or help American objectives in the Muslim world.

Obama believes it would be effectively exploited by Islamist propagandists. It might well be. On the other hand, visual evidence could be demoralizing to bin Laden's followers and helpful to U.S. credibility.

It's hard to fault either choice. But in close calls, it is usually best to err on the side of disclosure.

What's not worth fretting over is whether bin Laden was treated properly, in life or in death. He was owed nothing but an unpleasant ending.
II.2 GENRE ANALYSIS

II.2.1 AGAINST ARTICLES (GENRE ANALYSIS)

The Guardian column (Exposition)

Arguably, the Guardian column seems to exhibit a media exposition, specifically a hortatory exposition, in a number of ways. First, as discussed in section 3.1.3, the social purpose of a hortatory exposition is to argue “why something should be done – a kind of macro-modulated declarative—meaning ‘this should be done’” (Martin, 2001b:297-298). The current text seems to argue why “we should think about the impact bin Laden had on us” and why the killing must have a negative impact on our justice values. Second, the nature of thesis being proposed by the text is a moral one, a typical characteristic of hortatory media expositions (Martin & Peters, 1985:67). The text’s thesis seems to concern itself with whether a certain state (killing in this case) is right or wrong, good or bad, and whether some action should be taken (i.e. we should not follow his lead and we must not circumvent our justice system). Third, the main thesis of the text does not explicitly involve an alternative position. Finally, the text seemingly exhibits a media exposition structure with a Thesis, Arguments and a Reiteration of Thesis stages, as shown below.

<table>
<thead>
<tr>
<th>Generic Stage</th>
<th>Text (clauses)</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Headline</td>
<td>[1] How Osama bin Laden perverted US justice.</td>
<td>Headline is defined by the newspaper. The functional interpretation of the headline in this article is discussed in Chapter 5 (section 5.2).</td>
</tr>
<tr>
<td>Orientation</td>
<td>[2] Osama bin Laden’s death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade. [3] And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered.</td>
<td>The writer provides an evaluative summary of the killing event and its possible consequences on the public.</td>
</tr>
<tr>
<td>Thesis</td>
<td>[4] But the removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the “war on terror”. [5] It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice. [6] At the heart of the rhetoric justifying and explaining our policies has been the notion of justice. [7] In the decade since 9/11, the word has been used to mean many things, including revenge, retaliation, punishment and even healing. [8] So it was used by President Bush [9] when he told the nation and the world, time and time again, [10] that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice.</td>
<td>The shift from Orientation to Thesis is signalled by an internal consequence. Here the author explicitly states the main thesis of the article “think about the impact of the killing on justice. The stage, however, can be divided into two phases with clauses [4-5] introducing the thesis, and clauses [6-12] elaborating and explaining it. That is, an implicit internal comparison (e.g. in particular) connecting clause [6] to [4-5].</td>
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</table>
And in Sunday night’s statement, President Obama labeled the killing of bin Laden as a moment of justice as healing.

What we need to remember, though, is that the effect of bin Laden’s reign of terror on the notion of justice was to pervert it.

Argument 1

Under the rubric of fighting terror, the United States rolled back its hallowed notions of civil liberties, its embrace of modernity, and even its reliance on its own courts. We delved into medieval-style torture, we reneged on our courts as a viable option for trying terrorists, and we blindly took aim at a religion, rather than its disaffected hijackers.

The first argument is seemingly signalled by a marked Theme. Now the writer explicitly argues for the main thesis through explicit evaluations e.g. torture, renege, blindly (see Appendix IV for detailed Appraisal analysis). Negative judgment of us, as Americans, in this first argument is based on events prior to the killing e.g. Guantanamo Bay and Abu Ghraib torture.

Argument 2

It is not surprising but needs to be noted that bin Laden was killed in a gunfight. The order was to kill not capture, even in a face-to-face encounter, which this apparently was. We thus forfeited the right to parade his excesses to the world at large including to the thousands of Muslims whose family members have been killed by al-Qaeda attacks. We ran, knowingly, from the chance to hold him in custody, and to punish him by due process and make him account to the world for what he has done.

This, then, was the inevitable ending to the way the United States has chosen to conduct this war. Bin Laden was an enemy so dreaded and so feared that his killing by military execution was the only possible end for a country that had given up so much of itself in his name.

This was not a criminal, it was judged, that our courts, even after ten years, could handle.

This was not an enemy whose fate the United States wanted to debate with the world and in the world’s criminal courts.

His killing put an end to innumerable conversations that would, arguably, have continued to confound nations and their citizens.

In his death, as in his life, we followed his lead when it came to thinking about justice.

The second argument shifts to evaluating the killing itself. Negative evaluations of us, as Americans, and killing are present, e.g. we ran knowingly… forfeited… Clauses [23-27] can be read as a plausible justification of the killing. However, the author immediately discarded this justification as irrelevant to the fact that the killing perverted our justice.

Argument 3

There is no denying that bin Laden’s death is the end of the menace of al-Qaeda as we know it: that without his leadership, a diffuse network, frayed at the edges by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray.

But a word of warning may be in order.

Many of the pundits and politicians today are warning us not to let our guard down, to beef up security, to remember to be ever-vigilant even if the immediate menace in our

The third argument is initiated by a plausibly positive consequence of the killing (i.e. Al-Qaeda is now an ineffective network falling into disarray. However, in clauses [36-37] this consequence is ruled out as irrelevant to the fact that the US compromises its justice values.
sights has been vanquished.

[34] This is a version of the refrain that has marked the decade since 9/11:
[35] in fear, in hatred, in revenge, we need to fortify ourselves by forsaking many of our ideals.
[36] With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles,
[37] whether it’s on the matter of torture, of detention or of war without end.

**Reiteration of Thesis**

[38] Perhaps, in sending bin Laden’s body into the waters of the ocean,
[39] we should consider sending all that he represented to us to the bottom of the sea as well.
[40] Perhaps we could, in his absence, remember once again who we are,
[41] and begin to rebuild our confidence in ourselves
[42] starting with our system of justice.

Here the main Thesis (“reconsider” the impact of bin Laden’s killing on our justice values) is re-emphasized and restated with less explicit negative evaluations in e.g. sending all that he represented to us... remember once again who we are... starting with our system of justice...

The *USA Today* column (Exposition)

Similarly, the *USA Today* column can arguably be read as a media exposition for a number of reasons. First, the text argues for the main thesis that the killing is a violation of every human rights treaty. Alternative positions towards this thesis are not explicitly stated in the main Thesis stage. Argument stages seem to support the author’s thesis by considering the legality of the killing (in Argument 1), emphasizing the advantages of capture and trial (Argument 2) and describing the killing as fulfilment of bin Laden’s wish to die as a martyr (Argument 3). Finally the article concludes with a Reiteration of Thesis, restating the main Thesis with some evaluation, as shown below.

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<thead>
<tr>
<th>Generic Stage</th>
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<tbody>
<tr>
<td><strong>Headline</strong></td>
<td>[1] Opposing view : ‘He should have been taken alive’.</td>
<td>Headline is defined by the newspaper. The functional interpretation of the headline in this article is discussed in Chapter 5 (section 5.2).</td>
</tr>
<tr>
<td><strong>Thesis</strong></td>
<td>[2] Progress towards a better world requires the acceptance of certain universal standards.</td>
<td>The author presents the main thesis of the article that the killing, if it does not happen as self-defence, is wrong according to human rights treaties.</td>
</tr>
<tr>
<td></td>
<td>[3] The “right to life” endorsed by every human rights treaty protects individuals even the worst man in the world from being arbitrarily killed by a government or its agents.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>[4] That is why there must be a proper inquest into the U.S. killing of Osama bin Laden to determine whether it was done in self-defense or was a summary execution.</td>
<td></td>
</tr>
<tr>
<td><strong>Argument 1</strong></td>
<td>[8] The operation itself was undoubtedly</td>
<td>The first argument is initiated by admitting</td>
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lawful.

[9] Not for the reason the attorney general gives -LRB- “national self-defense” -RRB-.

[10] because bin Laden posed no immediate danger to the U.S.

[11] But because the incursion on Pakistan sovereignty was necessary to apprehend an international criminal whom that country had failed, through incompetence or connivance, to capture.

[12] However, the U.S. was not entitled to mount a “kill operation.”

[13] The law only permits criminals to be shot if they or their accomplices pose an immediate risk to life.

[14] Otherwise, they must be taken alive.

[15] It does not matter at all whether bin Laden refused to put his hands up in surrender.

[16] the only question is whether it was necessary for the SEALs to kill him to protect their own lives.

[17] that the lawfulness of entering Pakistan to apprehend bin Laden. However, the writer explicitly questions the killing part of the operation (e.g. was not entitled..., must be taken alive).

**Argument 2**

[18] It is nonsense to say “justice is done.”

[19] This is a misuse of the word “justice,” which requires a fair trial before an independent court.

[20] It would have been far better to demystify bin Laden by having this hateful and hate-filled man screaming from the dock or lying from the witness box rather than making him a martyr by killing him without trial.

The second argument is initiated by inscribed evaluations (nonsense to say) of the U.S. government and vindicating bin Laden’s right to a fair trial. Capture and trial are positively evaluated (far better).

So, whereas the first argument questions the rights of the US to kill bin Laden, this second argument defends the human rights of bin Laden.

**Argument 3**

[22] Ironic, isn’t it, that the U.S. has given bin Laden the death he most craved?

[23] In his crazy belief system, he wanted the fast-track to paradise obtained through death by an American bullet.

[24] The thing that most terrified him was being put on trial.

[25] so obviously he would have refused to surrender in which case, he should have been taken alive.

[26] and subjected to a legal process that would have caused him much more pain than the instant oblivion he received.

Argument 3 is initiated by depicting the killing as fulfillment of bin Laden’s wish to die as a martyr.

Furthermore, capture and trial are explicitly promoted since they may cause more “humane” pain than a summary execution.

The writer here implicitly rejected bin Laden’s refusal to surrender as a justification of the killing.

**Reiteration of Thesis**

[28] So killing instead of capturing bin Laden was a missed opportunity to prove to the world, and especially to the people currently rising up against tyrannies in Arab countries, that bin Laden was a false prophet with an inhuman and worthless cause.

The author restates the main thesis (that the killing is unlawful) by describing it as a “missed opportunity” of promoting justice.

Inscribed negative judgement of bin Laden echoes the thesis statement that even the worst man deserves a fair trial.

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**The Daily Telegraph column (Exposition)**
The generic structure of the Daily Telegraph column is not as straightforward as in the previous two articles. The first part of the article shows features that are characteristic to an exposition, including a one-sided thesis that the killing is an execution and we should admit it, and three supporting arguments (rather than rebuttals), as detailed below. In the second part of the text, the author introduces another thesis justifying to some extent the choice of killing instead of capturing, and supports it with five arguments. However, the article concludes with a Reiteration of the authorial thesis that the killing is a summary execution and that the U.S justifications are not all convincing. As a result, the whole article can be arguably seen as a media discussion with two separate Issue stages (one includes clauses [24-28], another includes clauses [61-64]). Or it can be feasibly considered as a macro-exposition with embedded minor challenges starting from clause 64 and ending in clause 94.

<table>
<thead>
<tr>
<th>Generic Stage</th>
<th>Text (clauses)</th>
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</table>
| **Headline**  | [1] Let’s be clear :  
[2] Osama bin Laden was executed  
[3] and for good reason .  
Headline is defined by the newspaper. The functional interpretation of the headline in this article is discussed in Chapter 5 (section 5.2). |
[5] We have all just learned some useful etiquette about how to greet US Navy Seals arriving unexpectedly in your house when you have just gone to bed .  
[6] If you find yourself lying there with your wife ,  
[7] just after turning off the lights ,  
[8] and there is a terrific racket from downstairs ,  
[9] you need to follow these essential dos and don’ts .  
[10] If the ninja-clad gunmen start charging up the stairs and shooting up your relatives ,  
[11] you are perfectly entitled to stick your head out of your bedroom door and have a gander .  
[12] You may gawp in horror  
[13] as a bullet whangs into the plaster near your ear .  
[14] But if you try to dodge the next bullet ,  
[15] I am afraid you may be deemed to have committed a "hostile act" .  
[16] If you are so rash as to duck back into your bedroom ,  
[17] you will apparently entitle the Seals to follow you into the matrimonial chamber , shoot your wife in the leg and then blow you away with a shot in the chest and the head .  
[18] Yup , it was Osama bin Laden ‘s "hostile act" of bullet-dodging that cost him his life ,  
[19] says the White House .  
[20] If he had only stayed out there on the landing  
[21] and taken the next bullet square on the mazzard ,  
[22] he would have been beyond suspicion .  
Here, the writer provides background information on the killing event. Although the author’s position towards the killing is not explicitly stated until the next stage, it is implicitly hinted at through sarcasm as discussed in Chapter 5, section 5.2.1. |
**Authorial Thesis**

<table>
<thead>
<tr>
<th>Clause</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>it seems .</td>
</tr>
<tr>
<td>24</td>
<td>As an explanation for killing an unarmed man , this is starting to get embarrassing .</td>
</tr>
<tr>
<td>25</td>
<td>I am reminded of the old South African police force .</td>
</tr>
<tr>
<td>26</td>
<td>who used to explain deaths in custody by saying that their unarmed black detainees had launched savage attacks with their left temples and the smalls of their backs on the steel toecaps of their guards .</td>
</tr>
<tr>
<td>27</td>
<td>So why do n’t we all just cut the cackle and admit the groaningly obvious .</td>
</tr>
<tr>
<td>28</td>
<td>The shift from Orientation to Thesis is signalled by an evaluation of the U.S explanation. The stage is initiated by a sarcastic recount functioning as a negative evaluation of the U.S. justification of bin Laden’s killing. The authorial thesis is then explicitly stated in clauses [27-28].</td>
</tr>
</tbody>
</table>

**Argument 1**

<table>
<thead>
<tr>
<th>Clause</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>It is perfectly clear why the US will not release the video footage they were all watching in the White House , and that caused Hillary to press her knuckles to her mouth .</td>
</tr>
<tr>
<td>30</td>
<td>There was no firefight .</td>
</tr>
<tr>
<td>31</td>
<td>Osama bin Laden did not cower behind his wife ,</td>
</tr>
<tr>
<td>32</td>
<td>spraying the US troops from his AK-47 like some scene from Call of Duty : Black Ops .</td>
</tr>
<tr>
<td>33</td>
<td>That was a lie that went round the world faster than it took the truth to get its boots on , and the truth was that bin Laden had n't even got his dressing gown on ,</td>
</tr>
<tr>
<td>34</td>
<td>let alone his boots ,</td>
</tr>
<tr>
<td>35</td>
<td>before he was despatched into the arms of Shaitan .</td>
</tr>
<tr>
<td>36</td>
<td>This was an assassination , a liquidation , an extra-judicial killing and a termination with extreme prejudice .</td>
</tr>
<tr>
<td>37</td>
<td>The first argument is signalled by a shift from evaluating the U.S version of the story (clauses [29-36]). The second is concerned with evaluating the killing itself (clause [37]). An implicit comparison (e.g. In fact) can be read between the two phases.</td>
</tr>
</tbody>
</table>

**Argument 2**

<table>
<thead>
<tr>
<th>Clause</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Whichever way you look at it ,</td>
</tr>
<tr>
<td>39</td>
<td>President Obama has carried out one of the most effective whack jobs ever seen , and if he does n't get re-elected</td>
</tr>
<tr>
<td>40</td>
<td>I will be amazed ,</td>
</tr>
<tr>
<td>41</td>
<td>Osama is a has-bin ,</td>
</tr>
<tr>
<td>42</td>
<td>who sleeps with the fishes of the North Arabian sea ,</td>
</tr>
<tr>
<td>43</td>
<td>and it could n’t have happened to a nicer guy .</td>
</tr>
<tr>
<td>44</td>
<td>But when the president tells us that “justice has been done ” ,</td>
</tr>
<tr>
<td>45</td>
<td>I think he needs to be a bit fuller in his definition of “justice” .</td>
</tr>
<tr>
<td>46</td>
<td>The second argument is signalled by a shift from evaluating the killing to evaluating Obama. The stage can arguably be divided into two phases. One phase (clauses [38-44]) is concerned with possible positive consequences of the killing. A second phase is signalled by an internal consequence (but). This phase is concerned with evaluating the killing act.</td>
</tr>
</tbody>
</table>

**Argument 3**

<table>
<thead>
<tr>
<th>Clause</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>It was 10 years ago this December .</td>
</tr>
<tr>
<td>50</td>
<td>when the net was closing in on bin Laden in Tora Bora , that I wrote a pious piece in this very space ,</td>
</tr>
<tr>
<td>51</td>
<td>urging that the mass murderer should be put on trial .</td>
</tr>
<tr>
<td>52</td>
<td>Read him the Miranda ,</td>
</tr>
<tr>
<td>53</td>
<td>give him his two telephone calls ,</td>
</tr>
<tr>
<td>54</td>
<td>and then arraign him for multiple homicide in New York and around the world .</td>
</tr>
<tr>
<td>55</td>
<td>It may be painful and problematic ,</td>
</tr>
<tr>
<td>56</td>
<td>but that is the difference between them and us .</td>
</tr>
<tr>
<td>57</td>
<td>The third argument is signalled by a shift to promoting human rights. Here, the writer advocates the rule of law through a sequence of positive (e.g. civilization) and negative (e.g. mass murderer, barbarism) evaluations.</td>
</tr>
<tr>
<td>Alternative Position</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td>[61] Fiat iustitia .</td>
<td></td>
</tr>
<tr>
<td>[62] ruat coelum ,</td>
<td></td>
</tr>
<tr>
<td>[63] I said ;</td>
<td></td>
</tr>
<tr>
<td>[64] and 10 years on I have to admit I can see why the Americans have not found it easy to follow my advice .</td>
<td></td>
</tr>
</tbody>
</table>

Although clauses [61-64] do not suggest a new stage (as the author continues his evaluation of capture and trial), it is very plausible to treat them as a separate stage because of the introduction of an alternative position (and alternative community) towards capture and trial in clause [64]. What follows can be arguably seen as arguments for this position.

<table>
<thead>
<tr>
<th>Alternative Argument 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>[65] Having pinpointed his lair ,</td>
</tr>
<tr>
<td>[66] they could hardly have asked the Pakistanis</td>
</tr>
<tr>
<td>[67] to put him on trial</td>
</tr>
<tr>
<td>[68] not when the Pakistani security services seem to be some kind of affiliate of al-Qaeda .</td>
</tr>
<tr>
<td>[69] They couldn't hold the trial in the Hague ,</td>
</tr>
<tr>
<td>[70] since the US does not recognize the jurisdiction of the International Criminal Court .</td>
</tr>
</tbody>
</table>

The first argument for the alternative thesis is signalled by implicit negative evaluations of ‘capture and trial’. The main premise of this argument is the possible affiliation between the Pakistani security services and Al-Qaeda as well as the U.S rejection of ICC’s jurisdiction.

<table>
<thead>
<tr>
<th>Alternative Argument 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[71] In an ideal world , they would have put him on trial in NYC , the place of his greatest crime .</td>
</tr>
<tr>
<td>[72] And then what ?</td>
</tr>
<tr>
<td>[73] A secret trial would have been deemed suspicious ;</td>
</tr>
<tr>
<td>[74] so we would have endured a long , showboating courtroom drama , with lawyers from the school of the O J Simpson defense trying to cast doubt on any connection between the accused and 9/11 . and the cameras of the world would have been trained for weeks on the noble and priestly features of the accused , as he subjected America and her allies to some of his finger-wagging denunciations .</td>
</tr>
</tbody>
</table>

The second argument further complicates “capture and trial” through negative evaluations of the legal system.

<table>
<thead>
<tr>
<th>Alternative Argument 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>[75] Though a New York jury would certainly have sent him down ,</td>
</tr>
<tr>
<td>[76] they do n't have the death penalty there</td>
</tr>
<tr>
<td>[77] and so his place of incarceration would have become a shrine , the nearby pavements covered with the wax of cretinous candlelit vigils .</td>
</tr>
</tbody>
</table>

The third argument supports the alternative thesis by considering the possible negative consequences of bin Laden’s incarceration.

<table>
<thead>
<tr>
<th>Alternative Argument 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>[78] Having been completely obscured by the events of the Arab spring ,</td>
</tr>
<tr>
<td>[79] al-Qaeda would be back on the airwaves recruiting again</td>
</tr>
<tr>
<td>[80] and that is perhaps where the Americans could mount a legitimate argument for what they have done .</td>
</tr>
<tr>
<td>[82] Bin Laden may represent a threat to US interests</td>
</tr>
<tr>
<td>[83] whether he is dead or alive ,</td>
</tr>
<tr>
<td>[84] but the reality is that he is much less of a threat in his current subaquatic position than he would be in either a courtroom or a prison .</td>
</tr>
</tbody>
</table>

The fourth argument entertains one positive consequences of bin Laden’s death, namely securing the U.S interests.
**Alternative Argument 5**

[85] In so far as President Obama has a duty to protect America and Americans, [86] he almost certainly has the necessary legal cover, provided by Congress, to remove bin Laden from the scene by any means at his disposal, [87] and that is what he has triumphantly done. [88] As an argument, it is not without its difficulties. [89] If America is to go around indulging in extra-judicial liquidation of anyone who poses a threat to American interests, [90] then we are entitled to wonder where it will end. [91] We may be worried that the enemies of America may be spurred to symmetrical retaliation and that we will be caught up in a cycle of killing and counter-killing. [92] But it is at least plausible, and emotionally convincing, to say Osama bin Laden was a clear and present danger to America; [93] he had it coming, [94] and the president had him killed.

The last argument stage in favour of the alternative position can be arguably divided into three phases. The first phase (clauses [85-87]) justifies the killing as being in line with the government’s duty to protect its citizens. The second phase (clauses [88-91]) negatively evaluates this justification, whereas the last phase (clause [92]) positively evaluates it.

**Reiteration of Thesis**

[95] All I ask is that we stop pussy-footing around about "hostile acts" and accept that this was an execution.

In this stage, the author re-states his position that the killing was an execution and we should admit it.

---

**The Montreal Gazette editorial (Challenge)**

Arguably, the Montreal Gazette editorial can be read as a media challenge for a number of reasons. First, as discussed in Chapter 3 (section 3.1.3), the social purpose of a challenge is to argue against an established position. In this article, the author argues against the majority’s position that the killing is morally and legally right. This challenged position is explicitly stated in a separate stage. Second, the article’s generic structure seems to exhibit a challenge with all obligatory stages (Position Challenged ^ Rebuttals ^ Anti-Thesis) as detailed below.

<table>
<thead>
<tr>
<th>Generic Stage</th>
<th>Text (clauses)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Headline</strong></td>
<td>[1] Osama bin Laden’s death was murder, [2] plain and simple.</td>
</tr>
</tbody>
</table>

Headline is defined by the newspaper. The functional interpretation of the headline in this article is discussed in Chapter 5 (section 5.2).

This stage briefly provides background information about the killing incident with a focus on the Americans’ emotional reaction to it. Nevertheless, this stage can alternatively be read as a phase within the next stage. However, the decision to treat it as separate is motivated by two features. First, the main function here is to provide information about
the killing itself rather than stating authorial position towards it (e.g. "On Sunday...announced"). Second, this structural function seems to be optional as the stage can possibly be omitted without affecting the social function of the article.

| Position Challenged | 6] They took to the streets in Washington and elsewhere in the country chanting "U.S.A., U.S.A." following Obama's pronouncement that justice had been done.
| 7] But had it? Here the position that the killing is just is explicitly stated with an authorial implicit evaluation towards it. The engagement countering (but) in clause [8] can be read as an indication that what follows is a challenge to this position.

| Rebuttal 1 | 9] It is a complex question with a complex answer, but one that must be addressed.
| 10] After all, the security of our democracies is based on the rule of law.
| 11] The U.S. is claiming it was a lawful act, but a closer look at the incident proves them wrong.
| 12] The evidence so far indicates that the U.S. murdered Osama.
| 13] The most obvious breach of international law perpetrated by the U.S. is the Americans' entry into Pakistan, which has since claimed it knew nothing about the operation.
| 14] If true, the U.S. would have violated international law simply by sending its forces into Pakistan.
| 15] A state's sovereignty is absolute; no other country's armed forces can enter without authorization.
| 16] The killing would be lawful if it occurred during an armed conflict and if bin Laden was a combatant taking part in the armed conflict.
| 17] Armed conflicts, both internal and international, are governed by international humanitarian law—LRB-IHL-RRB, which applies regardless of the legality of the war.
| 18] An international armed conflict is one that takes place between two states.
| 19] And an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists.
| 20] In both cases, IHL forbids the killing of non-combatants.
| 21] The International Committee of the Red Cross, the organization responsible for the rules of IHL, defines a non-combatant in an international armed conflict as a person who is not a member of the state's armed forces.
| 22] In an internal armed conflict, a non-combatant is a person who is not a member of the state's armed forces or a member of an armed group.
| 23] An individual is a member of an armed
group
[32] if his or her continuous function is to take part in the conflict.
[33] Because the killing took place in Pakistan,
[34] the U.S. can hardly argue
[35] that the act occurred as part of an international armed conflict
[36] since it is not,
[37] and does not claim to be, at war with Pakistan.
[38] Although some people may argue
[39] that the killing took place as part of the "war on terror",
[40] "terror is clearly not a state.
[41] And while the Navy SEALs are an armed group,
[42] it would be difficult to argue they were taking part in an internal armed conflict in Pakistan.

Rebuttal 2

[43] Al-Qaeda, of which bin Laden was the leader, could, however, be considered an armed group.
[44] If we argue
[45] that America was in the midst of an armed conflict with Al-Qaeda
[46] when it killed bin Laden,
[47] then the next step is to examine the killing itself.
[48] As I stated earlier,
[49] IHL forbids the killing of all noncombatants.
[50] Bin Laden could be considered a combatant as a member of Al-Qaeda.
[51] That being said,
[52] even if a person is considered a combatant under IHL,
[53] you can't just walk up
[54] and shoot him or her.
[55] The problem with this argument is that the war on terror is not, legally speaking, a war.
[56] It is an ambiguous state of affairs that escapes any legal definition
[57] yet seemingly allows the U.S. government to kill or arrest whomever it chooses.
[58] For example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war,
[59] and then having to abide by the rules of IHL concerning their treatment,
[60] the U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees.
[61] These terms are not found in international law.
[62] There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942.
[64] The U.S. could easily have either asked Pakistan's permission to enter the country.

The second rebuttal is concerned with the alternative argument that the killing is part of war on terror. Similarly, this rebuttal can be divided into three phases. The first phase (clauses [43-47]) presents the alternative argument as plausible. The second phase (clauses [48-55]) evaluates this argument as invalid (i.e. the problem with this argument...). The third phase (clauses [56-82]) elaborates on the invalidity of the argument.
or requested that bin Laden be extradited to the U.S. to face the charges against him. However, if Pakistan refused both requests, then the U.S. would have no legal recourse. That is where the law has its limits. The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009, but to no avail because his country is keeping him safe. Spain also fought for two years to have Chilean General Pinochet extradited from Britain to Spain to face charges, but Britain refused and eventually allowed Pinochet to return home. In neither case did armed forces enter another state’s territory to arrest or kill the accused. When we look at the facts, Obama sent his Navy SEALs into another state’s territory with the order to kill a man. They claim he resisted arrest, but admit he was unarmed. They managed to arrest the other members of his family present in the compound.

Anti-Thesis

The law changes constantly, and perhaps new laws will be written that will better frame this so-called “war on terror.” But when you look at the laws of today, the U.S. committed murder, plain and simple. Here the author rejects the alternative thesis and explicitly states his anti-thesis that the killing is in fact unlawful.

### II.2.2 FOR ARTICLES (GENRE ANALYSIS)

#### The NY Times column (Challenge)

<table>
<thead>
<tr>
<th>Generic Stage</th>
<th>Text (clauses)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Headline</strong></td>
<td>Killing Evil Doesn’t Make Us Evil.</td>
</tr>
<tr>
<td><strong>Orientation</strong></td>
<td>I want memory, and justice, and revenge. When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more, that seems like the only civilized and morally sound response. We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again smart and strong and capable of finding our enemies...</td>
</tr>
</tbody>
</table>
and striking back at them without getting trapped in multitrillion-dollar Groundhog Day occupations.

[7] There was the bad comedy of solipsistic Republicans with wounded egos trying to make it about how right they were and whinging that George W. Bush was due more credit.
[8] Their attempt to renew the debate about torture is itself torture.
[9] Whereas the intelligence work that led to the destruction of Bin Laden was begun in the Bush administration,
[10] the cache of schemes taken from Osama's Pakistan house debunked the fanciful narrative that the Bush crew pushed: that Osama was stuck in a cave unable to communicate, increasingly irrelevant and a mere symbol, rather than operational.
[11] Osama, in fact, was at the helm, spending his days whipping up bloody schemes to kill more Americans.

Position
Challenged

Rebuttal 1

[12] In another inane debate last week, many voices suggested
[13] that decapitating the head of a deadly terrorist network was some sort of injustice.

Rebuttal 2

[14] Taking offense after Ban Ki-moon, the United Nations secretary general, said
[15] he was much relieved at the news of Bin Laden's death.
[16] Kenneth Roth, the executive director of Human Rights Watch, posted the Twitter message:
[17] Ban Ki-moon wrong on Osama bin Laden:
[18] It's not justice for him to be killed
[19] even if justified
[21] I leave it to subtler minds to parse the distinction between what is just and what is justified.

Rebuttal 3

[22] When Angela Merkel, the German chancellor, said
[23] she was glad Bin Laden had been killed,
[24] a colleague called such talk medieval.
[25] Christophe Barbier, editor of the centrist French weekly L'Express, warned:
[26] To cry one's joy in the streets of our cities is to ape the turbaned barbarians who danced the night of Sept. 11.
[27] Those who celebrated on Sept. 11 were applauding the slaughter of American innocents.
[28] When college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere,
[29] they were the opposite of bloodthirsty:
[30] they were happy that one of the most certifiably evil figures of our time was no more.

Rebuttal 4

[31] The confused image of Bin Laden as a victim was exacerbated by John Brennan, the Obama national security aide who intemperately presented an inaccurate portrait of what had happened on the third floor in Abbottabad.
[32] Unlike the president and the Navy Seals, who performed with steely finesse, Brennan was overwrought, exaggerating the narrative to demonize the demon.
[33] The White House had to backtrack from Brennan's contentions that Osama was hiding behind women who were put in front of him as a shield and that he died after resisting in a firefight.
[34] It may be that some administration officials have taken Dick Cheney's belittling so much to heart that they are still reluctant to display effortless macho.
[35] Liberal guilt may have its uses.
[36] but it should not be wasted on this kill-mission.

Rebuttal 5

[37] The really insane assumption behind some of the second-guessing is that killing Osama somehow makes us like Osama, as if all killing is the same.
[38] Only fools or knaves would argue that
[39] we could fight Al Qaeda's violence non-violently.
[40] President Obama was prepared to take a life
[41] not only to avenge American lives already taken
[42] but to deter the same killer from taking any more.
[43] Aside from Bin Laden's plotting, his survival and his legend were inspirations for more murder.
[44] If stealth bombers had dropped dozens of 2,000-pound bombs and wiped out everyone,
[45] no one would have been debating whether Osama was armed.
[46] The president chose the riskiest option presented to him,
[47] but one that spared nearly all the women and children at the compound, and anyone in the vicinity.
[48] Unlike Osama, the Navy Seals took great care not to harm civilians
[49] they shot Bin Laden's youngest wife in the leg
[50] and carried two young girls out of harm's way.
before killing Osama.

**Anti-Thesis**

- Morally and operationally, this was counterterrorism at its finest.
- We have nothing to apologize for.

---

**The Pittsburgh Post-Gazette editorial (Exposition)**

**Generic Stage**

**Text (clauses)**

**Headline**

1. Justice is done.
2. Osama bin Laden is paid back in his own coin.

**Orientation**

3. In an undeclared war against shadowy foes, the long years of the fight do not often give the nation a moment of victorious exultation.
4. But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment.
5. Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news,
6. this is n't like August 1945 when the announcement of Japan's surrender led to unbridled joy across the country.
7. The celebration then was about an end to the killing.
8. No such hope graces the celebration now.
9. but it is a great victory nonetheless --
10. and something more than that.

**Thesis**

11. As President Barack Obama said late Sunday from the White House,
12. "Justice has been done."
13. Americans have waited 10 years for this day
14. and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil.
15. That justice was meted out by Navy SEALs in a foreign country, without U.S. casualties, is an added satisfaction.

**Argument 1**

16. Something that seemed in short supply, good military intelligence, paved the way for American courage and expertise to do its job.
17. As no other way could have done,
18. the terrorists of al-Qaeda have been put on notice.
19. Their leader is dead.
20. Buried at sea by his U.S. conquerors,
21. he leaves no shrine where followers might worship him.
22. They are left with even more reason to be looking over their shoulders.

**Argument 2**

23. Discouragement is al-Qaeda’s alone.
24. Still, in warning against reprisals, CIA Director Leon Panetta said,
26. Al-Qaeda is not.”
27. That is a timely caution and an invitation to renewed vigilance,
28. but not an excuse to be fearful.
29. While the effect of bin Laden’s death on al-Qaeda’s operational capacity remains unclear,
30. the deathblow to their leader offered the terrorists no new excuse to attack America.
31. That has always been their vowed intent.
32. In that regard, nothing has changed.
33. For their part, the Pakistanis have some explaining to do.
34. What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions and debate.

**Argument 3**

35. Americans are a good people.
36. Forgiveness runs deep in their faith traditions
37. and they do not normally revel in the death of even the worst criminals.
38. But they are also a fair-minded and practical people who recognize justice
39. and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.

**Reiteration of Thesis**

40. The morality of the moment is clear.
41. Americans are free to applaud the U.S. forces who bravely did their duty and the commander in chief who wisely sent them into battle to avenge the innocent dead of 9/11.
<table>
<thead>
<tr>
<th>The USA Today editorial (Exposition)</th>
<th>Text (clauses)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Headline</strong></td>
<td>[1] Our view: Armed or unarmed, bin Laden got what he deserved.</td>
</tr>
<tr>
<td><strong>Thesis</strong></td>
<td>[2] Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death and not, as initially reported, brandishing a weapon and hiding behind a woman?</td>
</tr>
<tr>
<td></td>
<td>[3] In a word, no.</td>
</tr>
<tr>
<td></td>
<td>[4] Whether judged by the formal rules of war, the pragmatic need to eliminate a threat or a gut-level hunger to deliver justice for the mass murder of 9/11,</td>
</tr>
<tr>
<td></td>
<td>[5] bin Laden deserved to die by any means necessary.</td>
</tr>
<tr>
<td></td>
<td>[6] Still, a few voices are calling for an inquiry into how bin Laden was killed</td>
</tr>
<tr>
<td></td>
<td>[7] and questioning whether he could, and should, have been captured alive and put on trial.</td>
</tr>
<tr>
<td></td>
<td>[8] The facts, the law and circumstances of the operation should put those questions to rest.</td>
</tr>
<tr>
<td></td>
<td>[10] Two years later, he attacked two U.S. Embassies in East Africa,</td>
</tr>
<tr>
<td></td>
<td>[11] killing 220 people,</td>
</tr>
<tr>
<td></td>
<td>[12] including a dozen Americans;</td>
</tr>
<tr>
<td></td>
<td>[13] he followed up in 2000 with an attack on the USS Cole,</td>
</tr>
<tr>
<td></td>
<td>[14] killing 17 sailors;</td>
</tr>
<tr>
<td></td>
<td>[16] And in his sick mind that was just a warm-up.</td>
</tr>
<tr>
<td></td>
<td>[17] He said</td>
</tr>
<tr>
<td></td>
<td>[18] he wanted to kill 4 million Americans.</td>
</tr>
<tr>
<td></td>
<td>[19] Splitting hairs over how he died might be an interesting exercise for academics or a convenient tool of anti-American activists,</td>
</tr>
<tr>
<td></td>
<td>[20] but nothing will change the fact that justice was done.</td>
</tr>
<tr>
<td><strong>Argument 2</strong></td>
<td>[21] Nor do the circumstances suggest any impropriety.</td>
</tr>
<tr>
<td></td>
<td>[22] When Navy SEALs, adrenalin pumping, burst into bin Laden’s Pakistani lair on Sunday night,</td>
</tr>
<tr>
<td></td>
<td>[24] They shot their way upstairs</td>
</tr>
<tr>
<td></td>
<td>[25] and into a room with the terrorist leader.</td>
</tr>
<tr>
<td></td>
<td>[26] They could not have known whether he had a hidden weapon, a suicide vest or a switch to blow them all away.</td>
</tr>
<tr>
<td></td>
<td>[27] Shooting to kill was the reasonable choice.</td>
</tr>
<tr>
<td><strong>Argument 3</strong></td>
<td>[28] If legal justifications are needed,</td>
</tr>
<tr>
<td></td>
<td>[29] they, too, are on the government’s side.</td>
</tr>
<tr>
<td></td>
<td>[30] On Sept. 18, 2001, Congress authorized the president to use “all necessary and appropriate force against those” who plotted and carried out the 9/11 attacks, essentially a declaration of war.</td>
</tr>
<tr>
<td></td>
<td>[31] Shooting a lawful target and who more than bin Laden would qualify?</td>
</tr>
<tr>
<td></td>
<td>[32] is legal under international law</td>
</tr>
<tr>
<td></td>
<td>[33] except when that target is surrendering.</td>
</tr>
<tr>
<td></td>
<td>[34] Short of lying on the ground and waving a white flag, bin Laden was fair game.</td>
</tr>
<tr>
<td><strong>Argument 4</strong></td>
<td>[35] Some Muslim clerics are also complaining</td>
</tr>
<tr>
<td></td>
<td>[36] that bin Laden’s burial did not comply with Islam’s rules.</td>
</tr>
<tr>
<td></td>
<td>[37] In fact, he was treated with far more respect in death than he ever showed to the living swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice.</td>
</tr>
<tr>
<td></td>
<td>[38] Again, a well-considered choice.</td>
</tr>
<tr>
<td></td>
<td>[39] Any gravesite could have become a terrorist shrine.</td>
</tr>
<tr>
<td><strong>Argument 5</strong></td>
<td>[40] The only tough call is whether to release a photo of bin Laden’s corpse to prove he’s dead.</td>
</tr>
<tr>
<td></td>
<td>[41] Doing so would not silence the skeptics,</td>
</tr>
<tr>
<td></td>
<td>[42] as President Obama said Wednesday in an interview with CBS</td>
</tr>
<tr>
<td></td>
<td>[43] explaining his decision keep the photo private.</td>
</tr>
<tr>
<td></td>
<td>[44] The question is whether its release would hurt or help American objectives in the Muslim world.</td>
</tr>
<tr>
<td></td>
<td>[45] Obama believes</td>
</tr>
<tr>
<td></td>
<td>[46] it would be effectively exploited by Islamist propagandists.</td>
</tr>
<tr>
<td></td>
<td>[47] It might well be.</td>
</tr>
</tbody>
</table>
On the other hand, visual evidence could be demoralizing to bin Laden’s followers and helpful to U.S. credibility.

It’s hard to fault either choice.

But in close calls, it is usually best to err on the side of disclosure.

What’s not worth fretting over is whether bin Laden was treated properly, in life or in death.

He was owed nothing but an unpleasant ending.
APPENDIX III  CONJUNCTION ANALYSIS (INTERNAL), FREQUENCY PROFILES AND GRAPHS

III.1  RETICULUM DIAGRAMS

The following reticulum diagrams are generated automatically by AppAnn Export Coding tool (see Appendix V, section V.3.11). Reticulum diagrams are proposed by Martin (1983; 1992) and Martin & Rose (2003).

To better view the following diagrams, zooming in may be useful.

Abbreviations used in reticulum diagrams:

<table>
<thead>
<tr>
<th>abbreviation</th>
<th>conjunction (Martin &amp; Rose, 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>exp</td>
<td>explicit internal conjunction</td>
</tr>
<tr>
<td>imp</td>
<td>implicit internal conjunction</td>
</tr>
<tr>
<td>dev coun</td>
<td>developing conjunction</td>
</tr>
<tr>
<td>conc</td>
<td>concluding conjunction</td>
</tr>
<tr>
<td>simi</td>
<td>similar conjunction</td>
</tr>
<tr>
<td>diff</td>
<td>different conjunction</td>
</tr>
<tr>
<td>stag</td>
<td>staging conjunction</td>
</tr>
<tr>
<td>succ</td>
<td>successive conjunction</td>
</tr>
<tr>
<td>simu</td>
<td>simultaneous conjunction</td>
</tr>
</tbody>
</table>

III.1.1 AGAINST ARTICLES

Figure III.1: Conjunction Analysis (the Guardian column)
Figure III.2: Conjunction Analysis (the USA Today column)

Figure III.3: Conjunction Analysis (the Daily Telegraph column)
III.1.2 FOR ARTICLES

Figure III.4: Conjunction Analysis (the Montreal Gazette editorial)
Figure III.5: Conjunction Analysis (the NY Times column)

[Text]

Figure III.6: Conjunction Analysis (the Pittsburgh Post-Gazette editorial)

[Text]
III.2 CONJUNCTION FREQUENCY PROFILES

In this section, raw frequencies of CONJUNCTION occurrences are given in the form of column charts.

Figure III.7: Conjunction Analysis (the USA Today editorial)

Figure III.8: Frequencies of Internal Conjunction in the whole BLK corpus
Figure III.9: Frequencies of Internal Conjunction in the AGAINST subcorpus

Figure III.10: Frequencies of Internal Conjunction in the FOR subcorpus
IV.1 APPRAISAL ANALYSES (CODINGS)

This appendix includes APPRAISAL codings generated automatically using AppAnn Export Codings Tool (see Appendix V, section V.3.11 below). Only aspects of the analyses that are directly related to the discussions presented in this thesis are included here. Comprehensive (and more delicate) analyses of APPRAISAL in the BLK corpus can be explored in AppAnn itself (see Appendix V).

IV.1.1 AGAINST ARTICLES

IV.1.1.1 THE GUARDIAN COLUMN

IV.1.1.1.1 POLARITY AND IDEATIONAL ENTITIES

Coding Scheme:

<table>
<thead>
<tr>
<th></th>
<th>positive</th>
<th>negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>How Osama bin Laden perverted [bin Laden] US justice [U.S government]</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Osama bin Laden’s death removes the single focal point that has dominated [bin Laden Killing] American foreign affairs and much of American politics [bin Laden Killing] at home for a decade [bin Laden]</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>And certainly, the United States and the world can breathe a sigh of relief [bin Laden Killing] that a dreaded [bin Laden] enemy no longer needs to be countered [bin Laden Killing]</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>But the removal of bin Laden also opens up some space for thinking [bin Laden killing] not just for perpetual reaction, which has been the singular characteristic of the American version of the “war on terror”</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>It is time now, and going forward, to think about the impact bin Laden had on us [bin Laden] and on our world, especially when it came to thinking about justice [bin Laden killing]</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>At the heart of the rhetoric [law/justice/evidence] justifying and explaining our policies has been the notion of justice</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>In the decade since 9/11, the word has been used to mean many things [U.S government], including revenge, retaliation, punishment [semiotic] and even healing [semiotic]</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>So it was used [Other Political Entities] by President Bush</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>when he told the nation and the world, time and time again [Other Political Entities]</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>And in Sunday night’s statement, President Obama labeled the killing of bin Laden as a moment of justice as healing [bin Laden Killing]</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>What we need to remember, though, is that the effect of bin Laden’s reign of terror [bin Laden] on the notion of justice [bin Laden killing] was to pervert [bin Laden] it [U.S government]</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Under the rubric of fighting terror, the United States rolled back [U.S government] its hallowed [generic] notions of civil liberties, its embrace of modernity [U.S government], and even its reliance on [U.S government] its own courts [U.S. Officials/Agents]</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>We delved into medieval-style torture [we/us]</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>we reneged [we/us] on our courts as a viable [U.S. Officials/Agents] option for trying terrorists</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>and we blindly [we/us] took aim at a religion [we/us], rather than its disaffected [generic] hijackers [Al-Qaeda]</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>It is not surprising</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>but needs to be noted that bin Laden was killed in a gunfight</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>The order was to kill not capture [U.S government], even in a face-to-face encounter, which this apparently was</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>We thus forfeited the right to parade [we/us] his excesses [bin Laden] to the world at large [bin Laden killing] including to the thousands of Muslims [bin Laden] whose family members have been killed by al-Qaeda attacks</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>We ran, knowingly [we/us], from the chance to hold him in custody [bin Laden killing], and to punish him by due process and make him account to the world for what he has done [bin Laden]</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>This, then, was the inevitable [generic] ending [bin Laden killing] to the way the United States has chosen to conduct [U.S government] this war</td>
<td></td>
</tr>
</tbody>
</table>
Officials/Agents] liberties, its 

Under the rubric of fighting terror, the United States wanted to debate with the world and in the world’s criminal courts.

His killing put an end [bin Laden Killing] to innumerable [semiotic] conversations that would, arguably, have continued to confound [semiotic] nations and their citizens.

In his death, as in his life, we followed his lead [we/us].

when it came to thinking about justice.

There is no denying that bin Laden’s death is the end of [bin Laden Killing] the menace [Al-Qaeda] of al-Qaida as we know it: that without his leadership, a diffuse [Al-Qaeda] network, frayed at the edges [Al-Qaeda] by a decade of effective [Other Entities] counterterrorism and banned [generic] by military interventions [U.S. Officials/Agents], will likely fall further into disarray [Al-Qaeda].

But a word of warning may be in order [semiotic].

Many of the pundits and politicians today are warning [bin Laden] us not to let our guard down, to beef up security, to remember to be ever-vigilant [we/us].

even if the immediate menace [bin Laden] in our sights has been vanquished.

This is a version of the refrain that has marked the decade since 9/11:

in fear [Al-Qaeda], in hatred [Al-Qaeda], in revenge, we need [Other Entities] to fortify ourselves by forsaking many of our ideals [we/us].

With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles [bin Laden killing].

whether it’s on the matter of torture [U.S government], of detention [we/us] or of war without end [we/us].

Perhaps, in sending bin Laden’s body into the waters of the ocean [bin Laden killing].

Perhaps we could, in his absence, remember once again who we are [we/us], and begin to rebuild our confidence [Al-Qaeda] in ourselves.

starting with our system of justice [we/us].

**IV.1.1.1.2 Explicitness (2 Choices) and Ideational Entities**

Coding Scheme:

- **Invoke**
- **Inscribe**

| 1 | How Osama bin Laden perverted [bin Laden] US justice [U.S. government]. |
| 2 | Osama bin Laden’s death removes the single focal point that has dominated [bin Laden killing] American foreign affairs and much of American politics [bin Laden killing] at home for a decade [bin Laden]. |
| 3 | And certainly, the United States and the world can breathe a sigh of relief [bin Laden killing] that a dreaded [bin Laden] enemy no longer needs to be countered [bin Laden Killing]. |
| 4 | But the removal of bin Laden also opens up some space for thinking [bin Laden Killing] not just for perpetual reaction, which has been the singular characteristic of the American version of the “war on terror”. |
| 5 | It is time now, and going forward, to think about the impact bin Laden had on us [bin Laden] and on our world, especially when it came to thinking about justice [bin Laden Killing]. |
| 6 | At the heart of the rhetoric [law/justice/evidence] justifying and explaining our policies has been the notion of justice. |
| 7 | In the decade since 9/11, the word has been used to mean many things [U.S. government], including revenge, retaliation, punishment [semiotic] and even healing [semiotic]. |
| 8 | So it was used [Other political] by President Bush. |
| 9 | when he told the nation and the world, time and time again [Other political]. |
| 10 | that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice. |
| 11 | And in Sunday night’s statement, President Obama labeled the killing of bin Laden as a moment of justice as healing [bin Laden Killing]. |
| 12 | What we need to remember, though, is that the effect of bin Laden’s reign of terror [bin Laden] on the notion of justice [bin Laden Killing] was to pervert [bin Laden] II (U.S. government). |
| 13 | Under the rubric of fighting terror, the United States rolled back [U.S. government] its hallowed [generic] notions of civil liberties, its embrace of modernity [U.S. government], and even its reliance on [U.S. government] its own courts [U.S. Officials/Agents]. |
| 14 | We delved into medieval-style torture [we/us]. |
| 15 | we reneged on our courts as a viable option for trying terrorists [bin Laden Killing]. |
| 16 | and we blindly [we/us] took aim at a religion [we/us], rather than its disaffected [generic] hijackers [Al-Qaeda]. |
It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice.

The removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the "war on terror".

Perhaps, in his absence, we should consider sending all that he represented to us to the bottom of the sea as well.

Starting with our system of justice, we need to be ever-vigilant.

With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own ideals.

We thus forfeited the right to parade his excesses to the world at large including to the thousands of Muslims whose family members have been killed by al-Qaida attacks.

We ran, knowingly, from the chance to hold him in custody, and to punish him by due process and make him account to the world for what he has done.

In the decade since 9/11, the word has been used to mean many things, including revenge, retaliation, punishment and even healing.

How Osama bin Laden perverted US justice.

Osama bin Laden's death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade.

And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered.

But the removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the "war on terror".

It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice.

At the heart of the rhetoric justifying and explaining our policies has been the notion of justice.

In the decade since 9/11, the word has been used to mean many things, including revenge, retaliation, punishment and even healing.

This was not an enemy whose fate we/us need to know in order.

Many of the pundits and politicians today are warning us not to let our guard down, to beef up security, to remember to be ever-vigilant.

Even if the immediate menace in our sights has been vanquished.

This is a version of the refrain that has marked the decade since 9/11:

In fear of Al-Qaeda, in hatred of Al-Qaeda, in revenge, we need to fortify ourselves by forsaking many of our ideals.

With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles.

Whether it's on the matter of torture, of detention or of war without end.

Perhaps, in sending bin Laden's body into the waters of the ocean, this was not a criminal.

If we/us knew it: that without his leadership, a network frayed at the edges of Al-Qaeda by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray.

This was not an end to bin Laden Killing to innumerable conversations that would, arguably, have continued to confound nations and their citizens.

In his death, as in his life, we followed his lead.

There is no end to the way the United States has chosen to conduct this war.

This was not a criminal, and so feared that his killing by military execution was the only possible end for a country that had given up so much of itself in his name.

For bin Laden Killing was the only possible end for a country that had given up so much of itself in his name.

Even if the immediate menace in our sights has been vanquished.

This was not an enemy whose fate we/us need to be ever-vigilant.

In the name of bin Laden, in revenge, we ordered to kill not capture.

By forsaking many of our ideals, we/us need to be ever-vigilant.

In the name of bin Laden, in revenge, we ordered to kill not capture.

By forsaking many of our ideals, we/us need to be ever-vigilant.

In the name of bin Laden, in revenge, we ordered to kill not capture.

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In the name of bin Laden, in revenge, we ordered to kill not capture.

By forsaking many of our ideals, we/us need to be ever-vigilant.

IV.1.1.1.3 ATTITUDE AND POLARITY (INScriptions)
So it was used by President Bush when he told the nation and the world, time and time again, that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice. And in Sunday night’s statement, President Obama labeled the killing of bin Laden as a moment of justice as he aligning.

What we need to remember, though, is that the effect of bin Laden’s reign of terror on the notion of justice was to pervert it. Under the rubric of fighting terror, the United States rolled back its hallowed notions of civil liberties, its embrace of modernity, and even its reliance on its own courts.

We delved into medieval-style torture, we reneged on our courts as a viable option for trying terrorists, and we blindly took aim at a religion, rather than its disaffected hijackers. It is not surprising but needs to be noted that bin Laden was killed in a gunfight. The order was to kill not capture, even in a face-to-face encounter, which this apparently was. We thus forfeited the right to parade his excesses to the world at large including to the thousands of Muslims whose family members have been killed by al-Qaida attacks.

We ran, knowingly, from the chance to hold him in custody, and to punish him by due process and make him account to the world for what he has done.

This, then, was the inevitable ending to the way the United States has chosen to conduct this war. Bin Laden was an enemy so dreaded and so feared that his killing by military execution was the only possible end for a country that had given up so much of itself in his name.

This was not a criminal, it was judged, that our courts, even after ten years, could handle.

This was not an enemy whose fate the United States wanted to debate with the world and in the world’s criminal courts. His killing put an end to innumerable conversations that would, arguably, have continued to confound nations and their citizens.

In his death, as in his life, we followed his lead when it came to thinking about justice.

There is no denying that bin Laden’s death is the end of the menace of al-Qaida as we know it: that without his leadership, a diffuse network, frayed at the edges by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray.

But a word of warning may be in order.

Many of the pundits and politicians today are warning us not to let our guard down, to beef up security, to remember to be ever-vigilant even if the immediate menace in our sights has been vanquished.

This is a version of the refrain that has marked the decade since 9/11: in fear, in hatred, in revenge, we need to fortify ourselves by forsaking many of our ideals.

With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles, whether it’s on the matter of torture, of detention or of war without end.

Perhaps, in sending bin Laden’s body into the waters of the ocean, we should consider sending all that he represented to us to the bottom of the sea as well.

Perhaps we could, in his absence, remember once again who we are, and begin to rebuild our confidence in ourselves starting with our system of justice.

IV.1.1.1.4 ATTITUDE AND POLARITY (INVOCATIONS)

Coding Scheme:
- positive affect
- negative affect
- positive judgment
- negative judgment
- positive appreciation
- negative appreciation

[2] Osama bin Laden’s death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade.
[3] And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered.
But the removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the “war on terror.”

It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice.

At the heart of the rhetoric justifying and explaining our policies has been the notion of justice.

In the decade since 9/11, the word has been used to mean many things, including revenge, retaliation, punishment and even healing.

So it was used by President Bush when he told the nation and the world, time and time again, that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice.

And in Sunday night’s statement, President Obama labeled the killing of bin Laden as a moment of justice as healing.

What we need to remember, though, is that the effect of bin Laden’s reign of terror on the notion of justice was to pervert it.

Under the rubric of fighting terror, the United States rolled back its hallowed notions of civil liberties, its embrace of modernity, and even its reliance on its own courts.

We delved into medieval-style torture, we reneged on our courts as a viable option for trying terrorists, and we blindly took aim at a religion, rather than its disaffected hijackers.

It is not surprising but needs to be noted that bin Laden was killed in a gunfight.

The order was to kill not capture, even in a face-to-face encounter, which this apparently was.

We thus forfeited the right to parade his excesses to the world at large, including to the thousands of Muslims whose family members have been killed by al-Qaeda attacks.

We ran, knowingly, from the chance to hold him in custody, and to punish him by due process and make him account to the world for what he has done.

This, then, was the inevitable ending to the way the United States has chosen to conduct this war.

Bin Laden was an enemy so dreaded and so feared that his killing by military execution was the only possible end for a country that had given up so much of itself in his name.

This was not a criminal, it was judged, that our courts, even after ten years, could handle.

This was not an enemy whose fate the United States wanted to debate with the world and in the world’s criminal courts.

His killing put an end to innumerable conversations that would, arguably, have continued to confound nations and their citizens.

In his death, as in his life, we followed his lead.

When it came to thinking about justice.

There is no denying that bin Laden’s death is the end of the menace of al-Qaeda as we know it: that without his leadership, a diffuse network, frayed at the edges by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray.

But a word of warning may be in order.

Many of the pundits and politicians today are warning us not to let our guard down, to beef up security, to remember to be ever-vigilant even if the immediate menace in our sights has been vanquished.

This is a version of the refrain that has marked the decade since 9/11:

In fear, in hatred, in revenge, we need to fortify ourselves by forsaking many of our ideals.

With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles.

Whether it’s on the matter of torture, of detention or of war without end.

Perhaps, in sending bin Laden’s body into the waters of the ocean.

We should consider sending all that he represented to us to the bottom of the sea as well.

Perhaps we could, in his absence, remember once again who we are, and begin to rebuild our confidence in ourselves starting with our system of justice.

IV.1.1.1.5 Engagement (5 CHOICES)
<table>
<thead>
<tr>
<th>Coding Scheme:</th>
<th>monoglossic</th>
<th>disclaim</th>
<th>proclaim</th>
<th>entertain</th>
<th>attribute</th>
</tr>
</thead>
</table>

2. Osama bin Laden’s death removes the single focal point that has dominated American foreign affairs and much of American politics at home for a decade.
3. And certainly, the United States and the world can breathe a sigh of relief that a dreaded enemy no longer needs to be countered.
4. But the removal of bin Laden also opens up some space for thinking not just for perpetual reaction, which has been the singular characteristic of the American version of the "war on terror".
5. It is time now, and going forward, to think about the impact bin Laden had on us and on our world, especially when it came to thinking about justice.
6. At the heart of the rhetoric justifying and explaining our policies has been the notion of justice.
7. In the decade since 9/11, the word has been used to mean many things, including revenge, retaliation, punishment and even healing.
8. So it was used by President Bush
9. when he told the nation and the world, time and time again,
10. that our purpose in waging war in Afghanistan and Iraq and Afghanistan was the bring the enemy to justice.
11. And in Sunday night’s statement, President Obama labeled the killing of bin Laden as a moment of justice as healing.
12. What we need to remember, though, is that the effect of bin Laden’s reign of terror on the notion of justice was to pervert it.
13. Under the rubric of fighting terror, the United States rolled back its hallowed notions of civil liberties, its embrace of modernity, and even its reliance on its own courts.
14. We delved into medieval-style torture,
15. we reneged on our courts as a viable option for trying terrorists,
16. and we blindly took aim at a religion, rather than its disaffected hijackers.
17. It is not surprising
18. but needs to be noted that bin Laden was killed in a gunfight.
19. The order was to kill not capture, even in a face-to-face encounter, which this apparently was.
20. We thus forfeited the right to parade his excesses to the world at large including to the thousands of Muslims whose family members have been killed by al-Qaeda attacks.
21. We ran, knowingly, from the chance to hold him in custody, and to punish him by due process and make him account to the world for what he has done.
22. This, then, was the inevitable ending to the way the United States has chosen to conduct this war.
23. Bin Laden was an enemy so dreaded and so feared that his killing by military execution was the only possible end for a country that had given up so much of itself in his name.
24. This was not a criminal,
25. it was judged, that our courts, even after ten years, could handle.
26. This was not an enemy whose fate the United States wanted to debate with the world and in the world’s criminal courts.
27. His killing put an end to innumerable conversations that would, arguably, have continued to confound nations and their citizens.
28. In his death, as in his life, we followed his lead
29. when it came to thinking about justice.
30. There is no denying that bin Laden’s death is the end of the menace of al-Qaeda as we know it: that without his leadership, a diffuse network, frayed at the edges by a decade of effective counterterrorism and harried by military interventions, will likely fall further into disarray.
31. But a word of warning: may be in order.
32. The of the pundits and politicians today are warning us not to let our guard down, to beef up security, to remember to be ever-vigilant.
33. If the immediate menace in our sights has been vanquished.
34. This is a version of the refrain that has marked the decade since 9/11:
35. in fear, in hatred, in revenge, we need to fortify ourselves by forsaking many of our ideals.
36. With this refrain in mind, we Americans, in the name of bin Laden, have been lured into a compromise with our own principles.
37. whether it’s on the matter of torture, of detention or of war without end.
38. Perhaps, in sending bin Laden’s body into the waters of the ocean,
39. we should consider sending all that he represented to us to the bottom of the sea as well.
40. Perhaps we could, in his absence, remember once again who we are,
41. and begin to rebuild our confidence in ourselves
42. starting with our system of justice.
IV.1.1.2 THE USA TODAY COLUMN

IV.1.1.2.1 POLARITY AND IDEATIONAL ENTITIES

Coding Scheme:

<table>
<thead>
<tr>
<th>positive</th>
<th>negative</th>
</tr>
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</table>

[1] Opposing view: 'He should have been taken alive [bin Laden Killing]' .
[3] The "right to life" endorsed by every human rights treaty protects individuals even the worst [bin Laden] man in the world from being arbitrarily killed [U.S government] by a government or its agents .
[5] whether it was done in self-defense [U.S. government]
[7] The operation itself was undoubtedly lawful [bin Laden Killing] .
[8] Not for the reason the attorney general gives -LRB- "national self-defense" -RRB- ,
[10] But because the incursion on Pakistan sovereignty was necessary [bin Laden Killing] to apprehend an international criminal [bin Laden] whom that country had failed [Other Governments] , through incompetence [Other Governments] or connivance [Other Governments] , to capture .
[11] However , the U.S. was not entitled [U.S. government] to mount a "kill operation [bin Laden killing] ."
[12] The law only permits criminals [bin Laden killing] to be shot
[13] if they or their accomplices pose an immediate risk to life .
[14] Otherwise , they must be taken alive .
[15] It does not matter at all whether bin Laden refused to put his hands up in surrender ;
[16] the only question is whether it was necessary [bin Laden Killing] for the SEALs to kill him to protect their own lives [bin Laden killing].
[17] It is [bin Laden killing] nonsense [semiotic] to say "justice is done [U.S. government] ."
[18] This is a misuse [Obama] of the word [bin Laden killing] " justice , "
[20] It would have been far better [law/justice/evidence] to demystify bin Laden by having this hateful [bin Laden] and hate-filled [bin Laden] man screaming from the dock or lying from the witness box rather than making him a martyr by killing him without trial [U.S government] .
[21] Ironic [U.S government] , is n't it , that the U.S. has given bin Laden the death he most craved [bin Laden] ?
[22] In his crazy belief system [bin Laden] , he wanted [bin Laden Killing] the fast-track to paradise [bin Laden] obtained through death by an American bullet [bin Laden killing] .
[23] So obviously he would have refused to surrender
[24] in which case , he should have been taken alive
[25] and subjected to a legal process [law/justice/evidence] that would have caused him much more pain [law/justice/evidence] than the instant oblivion [bin Laden killing] he received .
[26] So killing instead of capturing bin Laden was a [bin Laden killing] missed opportunity [U.S government] to prove to the world , and especially to the people currently rising up against tyrannies [Other Governments] in Arab countries , that bin Laden was a false [bin Laden] prophet with an inhuman [bin Laden] and worthless cause [bin Laden].

IV.1.1.2.2 EXPLICITNESS (2 CHOICES) AND IDEATIONAL ENTITIES

Coding Scheme:
Opposing view: `He should have been taken alive'.

Progress towards a better world requires the acceptance of certain universal standards.

The "right to life" endorsed by every human rights treaty protects individuals even the worst man in the world from being arbitrarily killed by a government or its agents.

That is why there must be a proper inquest into the U.S. killing of Osama bin Laden by a government or its agents.

To determine whether it was done in self-defense or was a summary execution.

The "right to life" endorsed by every human rights treaty protects individuals even the worst man in the world from being arbitrarily killed by a government or its agents.

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That is why there must be a proper inquest into the U.S. killing of Osama bin Laden by a government or its agents.

To determine whether it was done in self-defense or was a summary execution.
Not for the reason the attorney general gives -LRB- "national self-defense" -RRB-, because bin Laden posed no immediate danger to the U.S. But because the incursion on Pakistan sovereignty was necessary to apprehend an international criminal whom that country had failed, through incompetence or connivance, to capture. However, the U.S. was not entitled to mount a "kill operation." The law only permits criminals to be shot if they or their accomplices pose an immediate risk to life. Otherwise, they must be taken alive. It does not matter at all whether bin Laden refused to put his hands up in surrender; the only question is whether it was necessary for the SEALs to kill him to protect their own lives. It is nonsense to say "justice is done." This is a misuse of the word "justice." which requires a fair trial before an independent court. It would have been far better to demystify bin Laden by having this hateful and hate-filled man screaming from the dock or lying from the witness box rather than making him a martyr by killing him without trial. Ironic, isn't it, that the U.S. has given bin Laden the death he most craved? In his crazy belief system, he wanted the fast-track to paradise obtained through death by an American bullet. The thing that most terrified him was being put on trial, so obviously he would have refused to surrender in which case, he should have been taken alive and subjected to a legal process that would have caused him much more pain than the instant oblivion he received. So killing instead of capturing bin Laden was a missed opportunity to prove to the world, and especially to the people currently rising up against tyrannies in Arab countries, that bin Laden was a false prophet with an inhuman and worthless cause.

IV.1.1.2.4 ATTITUDE AND POLARITY (INVOCATIONS)

Coding Scheme:
positive affect
negative affect
positive judgment
negative judgment
positive appreciation
negative appreciation

1. Opposing view: "He should have been taken alive."  
2. Progress towards a better world requires the acceptance of certain universal standards.  
3. The "right to life" endorsed by every human rights treaty protects individuals even the worst man in the world from being arbitrarily killed by a government or its agents.  
4. That is why there must be a proper inquest into the U.S. killing of Osama bin Laden to determine whether it was done in self-defense or was a summary execution.  
5. The operation itself was undoubtedly lawful.  
6. Not for the reason the attorney general gives -LRB- "national self-defense" -RRB-, because bin Laden posed no immediate danger to the U.S. But because the incursion on Pakistan sovereignty was necessary to apprehend an international criminal whom that country had failed, through incompetence or connivance, to capture. However, the U.S. was not entitled to mount a "kill operation." The law only permits criminals to be shot if they or their accomplices pose an immediate risk to life. Otherwise, they must be taken alive. It does not matter at all whether bin Laden refused to put his hands up in surrender; the only question is whether it was necessary for the SEALs to kill him to protect their own lives. It is nonsense to say "justice is done." This is a misuse of the word "justice." which requires a fair trial before an independent court. It would have been far better to demystify bin Laden by having this hateful and hate-filled man screaming from the dock or lying from the witness box rather than making him a martyr by killing him without trial. Ironic, isn't it, that the U.S. has given bin Laden the death he most craved? In his crazy belief system, he wanted the fast-track to paradise obtained through death by an American bullet.
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So killing instead of capturing bin Laden was a missed opportunity to prove to the world, and especially to the people currently rising up against tyrannies in Arab countries, that bin Laden was a false prophet with an inhuman and worthless cause.
Let’s be clear:

1. Osama bin Laden was executed [U.S government]
2. and for good [bin Laden killing] reason.
3. Well, that’s handy [semiotic].
4. We have all just learned some useful [generic] etiquette about how to greet [U.S Officials/Agents] US Navy Seals arriving unexpectedly [U.S Officials/Agents] in your house when you have just gone to bed [U.S Officials/Agents].
5. If you find yourself lying there with your wife [bin Laden killing],
6. just after turning off the lights,
7. and there is a terrific racket [U.S Officials/Agents] from downstairs,
8. you need to follow these essential [semiotic] dos and don’ts.
9. If the ninja-clad [U.S Officials/Agents] gunmen start charging up the stairs and shooting up your relatives [U.S. Officials/Agents],
10. you are perfectly entitled to stick your head out of your bedroom door and have a gander [U.S Officials/Agents].
11. You may gawp in horror [generic]
12. as a bullet whangs into the plaster near your ear.
13. But if you try to dodge the next bullet,
14. I am afraid you may be deemed to have committed [U.S Officials/Agents] a “hostile [generic] act.”
15. If you are so rash [you/reader] as to duck back into your bedroom,
16. you will apparently entitle the Seals [bin Laden killing] to follow you into the matrimonial chamber [U.S. Officials/Agents],
17. shoot your wife in the leg [U.S Officials/Agents] and then blow you away with a shot in the chest and the head [U.S. Officials/Agents].
18. Yup, it was Osama bin Laden’s “hostile [bin Laden] act” of bullet-dodging [bin Laden killing] that cost him his life [U.S government].
19. says the White House.
20. If he had only stayed out there on the landing
21. and taken the next bullet square on the mazzard [U.S Officials/Agents],
22. he would have been beyond suspicion,
23. it seems.
24. As an explanation for killing an unarmed man [U.S Officials/Agents], this is starting to get embarrassing [semiotic].
25. I am reminded of the old South African police force.
26. who used to explain deaths in custody [bin Laden killing] by saying that their unarmed black detainees [Other Entities] had launched savage attacks with their left temples and the smalls of their backs on the steel toecaps of their guards [Other Entities].
27. So why do n’t we all just [bin Laden killing] cut the cackle [we/us]
28. and admit the groaningly obvious [we/us].
29. It is perfectly clear why the US will not release the video footage they were all watching in the White House, and that caused Hillary to press her knuckles to her mouth [Other Political Entities].
30. There was [bin Laden killing] no firefight [U.S government]
31. Osama bin Laden did not cover [U.S Officials/Agents] behind his wife,
32. spraying the US troops from his AK-47 like some scene from Call of Duty: Black Ops [U.S government].
33. That was a lie that went round the world faster than it took the truth to get its boots on [U.S government],
34. and the truth was that bin Laden had n’t even got his dressing gown on [U.S government],
35. let alone his boots,
36. before he was despatched into the arms of Shahtan.
38. Whichever way you look at it,
39. President Obama has carried out one of the most effective whack jobs ever seen [Obama],
40. and if he does n’t get re-elected
41. I will be amazed [Obama].
42. Osama is a has-bin.
43. who sleeps with the fishes of the North Arabian sea [bin Laden killing],
44. and it could n’t have happened to a nicer [generic] guy [bin Laden].
45. But when the president tells us
46. that “justice has been done”,
47. I think
48. he needs to be a bit fuller in his definition of “justice [Obama]” [bin Laden killing].
49. It was 10 years ago this December,
50. when the net was closing in on bin Laden in Tora Bora, that I wrote a pious [semiotic] piece in this very space,
51. urging [law/justice/evidence] that
| Page 516 |

| [52] the mass [bin Laden] murderer should be put on trial.  
| [53] Read him the Miranda,  
| [54] give him his two telephone calls,  
| [55] and then arraign him for multiple homicide [bin Laden] in New York and around the world.  
| [56] It may be painful [law/justice/evidence] and problematic [law/justice/evidence],  
| [57] I argued,  
| [58] but that is the difference between them [Al-Qaeda] and us [we/us].  
| [59] It’s civilisation [we/us] versus barbarism [Al-Qaeda], the rule of law [we/us] versus [law/justice/evidence] the law of the jungle [Al-Qaeda].  
| [60] It’s what we’re fighting for [we/us].  
| [61] Fiat iustitia,  
| [62] ruat coelum,  
| [63] I said;  
| [64] and 10 years on I have to admit I can see why the Americans have not found it easy to follow my advice [U.S. government].  
| [65] Having pinpointed his lair,  
| [66] they could hardly have asked the Pakistanis  
| [67] to put him on trial  
| [68] not when the Pakistani security services seem to be some kind of affiliate of al-Qaeda [Other Governments].  
| [69] They could n’t hold the trial in the Hague,  
| [70] since the US does not recognize [U.S. government] the jurisdiction of the International Criminal Court.  
| [71] In an ideal [generic] world, they would have put him on trial in NYC, the place of his greatest [Other Entities], crime [bin Laden].  
| [72] And then what?  
| [73] A secret trial would have been deemed suspicious [generic].  
| [74] so we would have endured [generic] a long, show-boatting courtroom drama, with lawyers from the school of the OJ Simpson defense trying to cast doubt on any connection between the accused and 9/11 [law/justice/evidence], and the cameras of the world would have been trained for weeks on the noble [Other Entities] and priestly features of the accused [bin Laden], as he subjected America and her allies to some of his finger-wagging [U.S government] denunciations [U.S government].  
| [75] Though a New York jury would certainly have sent him down [U.S. Officials/Agents].  
| [76] they do n’t have the death penalty there  
| [77] and so his place of incarceration would have become a shrine, the nearby pavements covered with the wax of cretinous candlelit vigils [law/justice/evidence],  
| [78] Having been completely obscured [Al-Qaeda] by the events of the Arab spring,  
| [79] al-Qaeda would be back on the airwaves  
| [80] recruiting again  
| [81] and that is perhaps where the Americans could mount a legitimate [semiotic] argument for what they have done [U.S government].  
| [82] Bin Laden may represent a threat [bin Laden] to US interests  
| [83] whether he is dead or alive.  
| [84] but the reality is that he is much less of a threat in his current subaquatic position than he would be in either a courtroom or a prison [bin Laden killing].  
| [85] In so far as President Obama has a duty to protect America and Americans,  
| [86] he almost certainly has the necessary legal cover, provided by Congress, to remove bin Laden from the scene by any means at his disposal [bin Laden killing].  
| [87] and that is what he has triumphantly [Obama] done.  
| [88] As an argument, it is not without its difficulties [semiotic].  
| [89] If America is to go around indulging in extra-judicial liquidation [U.S government] of anyone who poses a threat [generic] to American interests,  
| [90] then we are entitled to wonder [generic] where it will end [bin Laden killing].  
| [91] We may be worried [generic] that the enemies of America may be spurred to symmetrical retaliation and that we will be caught up in a cycle of killing and counter-killing [generic].  
| [92] But it is at least plausible, and emotionally convincing, to say Osama bin Laden was a clear and present danger to America [bin Laden],  
| [93] he had it coming,  
| [94] and the president had him killed [Obama].  
| [95] All I ask is that we stop pussy-footing [we/us] around about “hostile [generic] acts “ and accept that this was an [bin Laden killing] execution [U.S government].  

**IV.1.1.3.2 EXPLICITNESS (2 CHOICES) AND IDEATIONAL ENTITIES**
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It was 10 years ago this December, I think that "justice has been don
But when the president tells us and
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I will be and if he doesn't get re-elected
President Obama has carried out one of the most effective whack jobs ever seen [Obama], and if he doesn't get re-elected
I was 10 years ago this December, when the net was closing in on bin Laden in Tora Bora, that I wrote a pious [semiotic] piece in this very space.
II.1.1.3.3 "Attitude and Polarity (Inscriptions)"

Coding Scheme:
positive affect
negative affect
positive judgment
negative judgment
positive appreciation
negative appreciation

[1] Let’s be clear:
[2] Osama bin Laden was executed
[3] and for good reason.
[5] We have all just learned some useful etiquette about how to greet US Navy Seals arriving unexpectedly in your house when you have just gone to bed.
[6] If you find yourself lying there with your wife,
[7] just after turning off the lights,
[8] and there is a terrific racket from downstairs,
[9] you need to follow these essential dos and don’ts.
[10] If the ninja-clad gunmen start charging up the stairs and shooting up your relatives,
[11] you are perfectly entitled to stick your head out of your bedroom door and have a gander.
[12] You may gape in horror as a bullet whangs into the plaster near your ear.
[13] But if you try to dodge the next bullet,
[15] I am afraid you may be deemed to have committed a "hostile act".
[16] If you are so rash as to duck back into your bedroom,
[17] you will apparently entitle the Seals to follow you into the matrimonial chamber, shoot your wife in the leg and then blow you away with a shot in the chest and the head.
[18] Yup, it was Osama bin Laden’s "hostile act" of bullet-dodging that cost him his life,
[19] says the White House.
[20] If he had only stayed out there on the landing
[21] and taken the next bullet square on the mazzard,
[22] he would have been beyond suspicion,
[23] it seems.
[24] As an explanation for killing an unarmed man, this is starting to get embarrassing.
[25] I am reminded of the old South African police force,
[26] who used to explain deaths in custody by saying that their unarmed black detainees had launched savage attacks with their left temples and the smalls of their backs on the steel toecaps of their guards.
[27] So why don’t we all just cut the cackle
[28] and admit the groaningly obvious.
[29] It is perfectly clear why the US will not release the video footage they were all watching in the White House, and that caused Hillary to press her knuckles to her mouth.
[30] There was no firefight.
[31] Osama bin Laden did not cower behind his wife.
[32] spraying the US troops from his AK-47 like some scene from Call of Duty: Black Ops.
[33] That was a lie that went round the world faster than it took the truth to get its boots on,
[34] and the truth was that bin Laden had n’t even got his dressing gown on,
[35] let alone his boots,
[36] before he was despatched into the arms of Shaitan.
[37] This was an assassination, a liquidation, an extra-judicial killing and a termination with extreme prejudice.
[38] Whichever way you look at it.
[39] President Obama has carried out one of the most effective whack jobs ever seen,
[40] and if he does n’t get re-elected
[41] I will be amazed.
[42] Osama is a has-bin,
[43] who sleeps with the fishes of the North Arabian sea,
[44] and it could n’t have happened to a nicer guy.
[45] But when the president tells us
[46] that "justice has been done",
[47] I think
[48] he needs to be a bit fuller in his definition of "justice".
[49] It was 10 years ago this December,
[50] when the net was closing in on bin Laden in Tora Bora, that I wrote a pious piece in this very space,
[51] urging that
[52] the mass murderer should be put on trial.
[53] Read him the Miranda,
[54] give him his two telephone calls,
and then arraign him for multiple homicide in New York and around the world.

It may be painful and problematic, I argued, but that is the difference between them and us. It's civilisation versus barbarism, the rule of law versus the law of the jungle.

It's what we're fighting for. Fiat iustitia, ruat coelum, I said; and 10 years on I have to admit I can see why the Americans have not found it easy to follow my advice.

Having pinpointed his lair, they could hardly have asked the Pakistanis to put him on trial not when the Pakistani security services seem to be some kind of affiliate of al-Qaeda. They couldn't hold the trial in the Hague, since the US does not recognize the jurisdiction of the International Criminal Court.

In an ideal world, they would have put him on trial in NYC, the place of his greatest crime. And then what? A secret trial would have been deemed suspicious; so we would have endured a long, show-boating courtroom drama, with lawyers from the school of the O J Simpson defense trying to cast doubt on any connection between the accused and 9/11, and the cameras of the world would have been trained for weeks on the noble and priestly features of the accused, as he subjected America and her allies to some of his finger-wagging denunciations.

Though a New York jury would certainly have sent him down, they do not have the death penalty there and so his place of incarceration would have become a shrine, the nearby pavements covered with the wax of cretinous candlelit vigils.

Having been completely obscured by the events of the Arab spring, al-Qaeda would be back on the airwaves recruiting again and that is perhaps where the Americans could mount a legitimate argument for what they have done.

Bin Laden may represent a threat to US interests, whether he is dead or alive, but the reality is that he is much less of a threat in his current subaquatic position than he would be in either a courtroom or a prison.

In so far as President Obama has a duty to protect America and Americans, he almost certainly has the necessary legal cover, provided by Congress, to remove bin Laden from the scene by any means at his disposal and that is what he has triumphantly done.

As an argument, it is not without its difficulties. If America is to go around indulging in extra-judicial liquidation of anyone who poses a threat to American interests, then we are entitled to wonder where it will end.

We may be worried that the enemies of America may be spurred to symmetrical retaliation and that we will be caught up in a cycle of killing and counter-killing.

But it is at least plausible, and emotionally convincing, to say Osama bin Laden was a clear and present danger to America; he had it coming, and the president had him killed.

All I ask is that we stop pussy-footing around about "hostile acts" and accept that this was an execution.
Let's be clear:

Osama bin Laden was executed and for good reason.

Well, that's handy.

We have all just learned some useful etiquette about how to greet US Navy Seals arriving unexpectedly in your house when you have just gone to bed.

If you find yourself lying there with your wife, just after turning off the lights, and there is a terrific racket from downstairs, you need to follow these essential dos and don'ts.

If the ninja-clad gunmen start charging up the stairs and shooting up your relatives, you are perfectly entitled to stick your head out of your bedroom door and have a gander.

You may gawp in horror as a bullet whangs into the plaster near your ear. But if you try to dodge the next bullet, I am afraid you may be deemed to have committed a "hostile act".

If you are so rash as to duck back into your bedroom, you will apparently entitle the Seals to follow you into the matrimonial chamber, shoot your wife in the leg and then blow you away with a shot in the chest and the head.

Yup, it was Osama bin Laden’s "hostile act" of bullet-dodging that cost him his life, says the White House.

If he had only stayed out there on the landing and taken the next bullet square on the mazzard, he would have been beyond suspicion, it seems.

As an explanation for killing an unarmed man, this is starting to get embarrassing.

I am reminded of the old South African police force, who used to explain deaths in custody by saying that their unarmed black detainees had launched savage attacks with their left temples and the smalls of their backs on the steel toecaps of their guards.

So why do we all just cut the cackle and admit the groaningly obvious.

It is perfectly clear why the US will not release the video footage they were all watching in the White House, and that caused Hillary to press her knuckles to her mouth.

There was no firefight.

Osama bin Laden did not cower behind his wife, spraying the US troops from his AK-47 like some scene from Call of Duty: Black Ops.

That was a lie that went round the world faster than it took the truth to get its boots on, and the truth was that bin Laden had n't even got his dressing gown on, let alone his boots, before he was despatched into the arms of Shaitan.

This was an assassination, a liquidation, an extra-judicial killing and a termination with extreme prejudice.

Whichever way you look at it, President Obama has carried out one of the most effective whack jobs ever seen, and if he does n't get re-elected I will be amazed.

Osama is a has-bin, who sleeps with the fishes of the North Arabian sea, and it could n't have happened to a nicer guy.

But when the president tells us that "justice has been done", I think he needs to be a bit fuller in his definition of "justice".

It was 10 years ago this December, when the net was closing in on bin Laden in Tora Bora, that I wrote a pious piece in this very space, urging that the mass murderer should be put on trial.

But that was a lie that went round the world faster than it took the truth to get its boots on...
Read him the Miranda,
give him his two telephone calls,
and then arraign him for multiple homicide in New York and around the world.
It may be painful and problematic,
but that is the difference between them and us.
It’s civilisation versus barbarism, the rule of law versus the law of the jungle.
It’s what we’re fighting for.
Fiat iustitia,
rut coelum,
I said;
and 10 years on I have to admit I can see why the Americans have not found it easy to follow my advice.
Having pinpointed his lair,
they could hardly have asked the Pakistanis
to put him on trial
not when the Pakistani security services seem to be some kind of affiliate of al-Qaeda.
They couldn’t hold the trial in the Hague, since the US does not recognize the jurisdiction of the International Criminal Court.
In an ideal world, they would have put him on trial in NYC, the place of his greatest crime.
And then what?
A secret trial would have been deemed suspicious;
so we would have endured a long, show-boating courtroom drama, with lawyers from the school of the O J Simpson defense trying to cast doubt on any connection between the accused and 9/11, and the cameras of the world would have been trained for weeks on the noble and priestly features of the accused, as he subjected America and her allies to some of his finger-wagging denunciations.
Though a New York jury would certainly have sent him down,
they don’t have the death penalty there
and so his place of incarceration would have become a shrine, the nearby pavements covered with the wax of cretinous candlelit vigils.
Having been completely obscured by the events of the Arab spring,
al-Qaeda would be back on the airwaves
recruiting again
and that is perhaps where the Americans could mount a legitimate argument for what they have done.
Bin Laden may represent a threat to US interests
whether he is dead or alive,
but the reality is that he is much less of a threat in his current subaquatic position than he would be in either a courtroom or a prison.
In so far as President Obama has a duty to protect America and Americans,
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As an argument, it is not without its difficulties.
If America is to go around indulging in extra-judicial liquidation of anyone who poses a threat to American interests,
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We may be worried that the enemies of America may be spurred to symmetrical retaliation and that we will be caught up in a cycle of killing and counter-killing.
But it is at least plausible, and emotionally convincing, to say Osama bin Laden was a clear and present danger to America;
he had it coming,
and the president had him killed.
All I ask is that we stop pussy-footing around about ‘hostile acts’ and accept that this was an execution.
### IV.1.1.3.5 ENGAGEMENT (5 CHOICES)

**Coding Scheme:**
- monoglossic
- disclaim
- proclaim
- entertain
- attribute

1. Let's be clear:
2. Osama bin Laden was executed
3. and for good reason.
4. Well, that's handy.
5. We have just learned some useful etiquette about how to greet US Navy Seals arriving unexpectedly in your house when you have just gone to bed.
6. If you find yourself lying there with your wife, just after turning off the lights, and there is a terrific racket from downstairs, you need to follow these essential dos and don'ts.
7. If the ninja-clad gunmen start charging up the stairs and shooting up your relatives, you are perfectly entitled to stick your head out of your bedroom door and have a gander.
8. You may gawp in horror as a bullet whangs into the plaster near your ear.
9. But if you try to dodge the next bullet, if you are so rash as to duck back into your bedroom, you will apparently entitle the Seals to follow you into the matrimonial chamber, shoot your wife in the leg and then blow you away with a shot in the chest and the head.
10. Yup, it was Osama bin Laden's "hostile act" of bullet-dodging that cost him his life, and the White House.
11. If he had only stayed out there on the landing and taken the next bullet square on the mazzard, he would have been beyond suspicion.
12. It seems.
13. As an explanation for killing an unarmed man, this is starting to get embarrassing.
14. I am afraid you may be deemed to have committed a "hostile act".
15. If you are so rash as to duck back into your bedroom, you will apparently entitle the Seals to follow you into the matrimonial chamber, shoot your wife in the leg and then blow you away with a shot in the chest and the head.
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17. If he had only stayed out there on the landing and taken the next bullet square on the mazzard, he would have been beyond suspicion.
18. It is perfectly clear why the US will not release the video footage they were all watching in the White House, and that caused Hillary to press her knuckles to her mouth.
19. There was no firefight.
20. Osama bin Laden did not cower behind his wife, spraying the US troops from his AK-47 like some scene from Call of Duty: Black Ops.
21. That was a lie that went round the world faster than it took the truth to get its boots on, and the truth was that bin Laden hadn't even got his dressing gown on, let alone his boots, before he was despatched into the arms of Shaitan.
22. This was an assassination, a liquidation, an extra-judicial killing and a termination with extreme prejudice.
23. Whatever way you look at it, President Obama has carried out one of the most effective whack jobs ever seen, and if he does n't get re-elected, I will be amazed.
24. Osama is a has-bin, who sleeps with the fishes of the North Arabian sea, and it could n't have happened to a nicer guy.
25. But when the president tells us that "justice has been done", I think he needs to be a bit fuller in his definition of "justice".
26. It was 10 years ago this December, when the net was closing in on bin Laden in Tora Bora, that I wrote a pious piece in this very space, urging that the mass murderer should be put on trial.
27. Read him the Miranda.
give him his two telephone calls, and then arraign him for multiple homicide in New York and around the world. It may be painful and problematic, I argued, but that is the difference between them and us. It’s civilisation versus barbarism, the rule of law versus the law of the jungle. It’s what we’re fighting for.

It’s civilisation versus barbarism, the rule of law versus the law of the jungle. It’s what we’re fighting for.

Fiat iustitia, ruat coelum, I said; and 10 years on I have to admit I can see why the Americans have not found it easy to follow my advice. Having pinpointed his lair, they could hardly have asked the Pakistanis to put him on trial not when the Pakistani security services seem to be some kind of affiliate of al-Qaeda. They couldn’t hold the trial in the Hague, since the US does not recognize the jurisdiction of the International Criminal Court.

In an ideal world, they would have put him on trial in NYC, the place of his greatest crime. And then what? A secret trial would have been deemed suspicious; so we would have endured a long, show-boating courtroom drama, with lawyers from the school of the O J Simpson defense trying to cast doubt on any connection between the accused and 9/11, and the cameras of the world would have been trained for weeks on the noble and priestly features of the accused, as he subjected America and her allies to some of his finger-wagging denunciations.

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We may be worried that the enemies of America may be spurred to symmetrical retaliation and that we will be caught up in a cycle of killing and counter-killing.

But it is at least plausible, and emotionally convincing, to say Osama bin Laden was a clear and present danger to America; he had it coming, and the president had him killed.

All I ask is that we stop pussy-footing around about hostile acts and accept that this was an execution.

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### IV.1.1.4 THE MONTREAL GAZETTE EDITORIAL

#### IV.1.1.4.1 POLARITY AND IDEATIONAL ENTITIES

<table>
<thead>
<tr>
<th>Coding Scheme:</th>
<th>positive</th>
<th>negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osama bin Laden’s death was [bin Laden killing] murder [U.S government].</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[1]
There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942. These terms are not found in international law. The U.S. called them "state secrets" and then having to abide by the rules of IHL concerning their treatment, for example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war, yet seemingly allows the U.S. government to kill or arrest whomever it chooses. It is an international law simply by sending its forces into Pakistan. A state's sovereignty is absolute; no other country's armed forces can enter without authorization. The killing would be lawful. If it occurred during an armed conflict and if bin Laden was a combatant taking part in the armed conflict. Armed conflicts, both internal and international, are governed by international humanitarian law -LRB- IHL -RRB-, which applies regardless of the legality of the war. An international armed conflict is one that takes place between two states, and an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists. In both cases, IHL forbids the killing of non-combatants. The International Committee of the Red Cross, the organization responsible for the rules of IHL, defines a non-combatant in an international armed conflict as a person who is not a member of the state's armed forces. In an internal armed conflict, a non-combatant is a person who is not a member of the state's armed forces or a member of an armed group. An individual is a member of an armed group if his or her continuous function is to take part in the conflict. Because the killing took place in Pakistan, the U.S. can hardly argue that the act occurred as part of an international armed conflict. Since it is not, and does not claim to be, at war with Pakistan, although some people may argue that the killing took place as part of the war on terror, "terror is clearly not a state of affairs that earthquakes any legal definition. While the Navy SEALs are an armed group, Al-Qaeda, of which bin Laden was the leader, could, however, be considered an armed group. If we argue that America was in the midst of an armed conflict with Al-Qaeda, then the next step is to examine the killing itself. As I stated earlier, IHL forbids the killing of all non-combatants. Bin Laden could be considered a combatant as a member of Al-Qaeda. That being said, even if a person is considered a combatant under IHL, you can't just walk up and shoot him or her. The problem with this argument is that the war on terror is not, legally speaking, a war. It is an ambiguous state of affairs that escapes any legal definition. Yet seemingly allows the U.S. government to kill or arrest whomever it chooses. For example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war, and then having to abide by the rules of IHL concerning their treatment, the U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees. These terms are not found in international law. There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942.
The U.S. put out an arrest warrant against bin Laden in 2000. The U.S. could easily have either asked Pakistan’s permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him. However, if Pakistan refused both requests, then the U.S. would have no legal recourse. That is where the law has its limits.

The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009, but to no avail because his country is keeping him safe. Spain also fought for two years to have Chilean General Pinochet extradited from Britain to Spain to face charges, but Britain refused and eventually allowed Pinochet to return home.

In neither case did armed forces enter another state’s territory to arrest or kill the accused. When we look at the facts, Obama sent his Navy SEALs into another state’s territory with the order to kill a man. They claim he resisted arrest, but admit he was unarmed. They managed to arrest the other members of his family present in the compound.

The law changes constantly, and perhaps new laws will be written that will better frame this so-called “war on terror.” But when you look at the laws of today, the U.S. committed murder.

The U.S. is claiming it was a lawful act, but a closer look at the incident proves them wrong. The evidence so far indicates that the U.S. murdered Osama bin Laden. The most obvious breach of international law perpetrated by the U.S. is the Americans’ entry into Pakistan, which has since claimed it knew nothing about the operation.

If true, the U.S. would have violated international law simply by sending its forces into Pakistan. A state’s sovereignty is absolute; no other country’s armed forces can enter without authorization. The killing would be lawful if it occurred during an armed conflict and if bin Laden was a combatant taking part in the armed conflict.

Armed conflicts, both internal and international, are governed by international humanitarian law -LRL- IHL -RRB-, which applies regardless of the legality of the war.

IV.1.1.4.2 EXPLICITNESS (2 CHOICES) AND IDEATIONAL ENTITIES

Coding Scheme:

invoke
inscribe

1. Osama bin Laden’s death was murder.
2. plain and simple.
3. On Sunday, U.S. President Barack Obama announced that U.S. Navy SEALs had killed Osama bin Laden.
4. They took to the streets in Washington and elsewhere in the country chanting “U.S.A., U.S.A.”
5. Following Obama’s pronouncement that justice had been done.
6. But had it?
7. It is a complex question with a complex answer.
8. After all, the security of our democracies is based on the rule of law.
9. The U.S. is claiming it was a lawful act.
10. but a closer look at the incident proves them wrong.
11. The evidence so far indicates that the U.S. murdered.
12. The most obvious breach of international law perpetrated by the U.S. is the Americans’ entry into Pakistan, which has since claimed it knew nothing about the operation.
13. If true, the U.S. would have violated international law simply by sending its forces into Pakistan.
14. A state’s sovereignty is absolute.
15. no other country’s armed forces can enter without authorization.
16. The killing would be lawful if it occurred during an armed conflict.
17. and if bin Laden was a combatant taking part in the armed conflict.
18. Armed conflicts, both internal and international, are governed by international humanitarian law -LRL- IHL -RRB-, which applies regardless of the legality of the war.
An international armed conflict is one that takes place between two states, and an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists. In both cases, IHL forbids the killing of non-combatants. The International Committee of the Red Cross, the organization responsible for the rules of IHL, defines a non-combatant in an international armed conflict as a person who is not a member of the state's armed forces. In an internal armed conflict, a non-combatant is a person who is not a member of the state's armed forces or a member of an armed group. An individual is a member of an armed group if his or her continuous function is to take part in the conflict. Because the killing took place in Pakistan, the U.S. can hardly argue that the act occurred as part of an international armed conflict since it is not. And does not claim to be, at war with Pakistan. Although some people may argue that the killing took place as part of the ''war on terror'', IHL forbids the killing of all non-combatants, yet seemingly allows the U.S. to kill American citizens. The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009. The U.S. put out an arrest warrant against bin Laden in 2000. There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942. The U.S. could easily have either asked Pakistan's permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him. However, if Pakistan refused both requests, then the U.S. would have no legal recourse. That is where the law has its limits. The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009. The U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees. These terms are not found in international law. There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942. The U.S. put out an arrest warrant against bin Laden in 2000. The U.S. could easily have either asked Pakistan's permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him. However, if Pakistan refused both requests, then the U.S. would have no legal recourse. That is where the law has its limits. The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009. The U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees. These terms are not found in international law. There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942. The U.S. put out an arrest warrant against bin Laden in 2000. The U.S. could easily have either asked Pakistan's permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him. However, if Pakistan refused both requests, then the U.S. would have no legal recourse. That is where the law has its limits. The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009. The U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees. These terms are not found in international law.
**IV.1.1.4.3 ATTITUDE AND POLARITY (INSCRIPTIONS)**

**Coding Scheme:**

- positive affect
- negative affect
- positive judgment
- negative judgment
- positive appreciation
- negative appreciation

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1. Osama bin Laden’s death was murder,
2. plain and simple.
3. On Sunday, U.S. President Barack Obama announced that U.S. Navy SEALs had killed Osama bin Laden,
4. and Americans rejoiced.
5. They took to the streets in Washington and elsewhere in the country chanting “U.S.A., U.S.A.” following Obama’s pronouncement that justice had been done.
6. But had it?
7. It is a complex question with a complex answer,
8. but one that must be addressed.
9. After all, the security of our democracies is based on the rule of law.
10. The U.S. is claiming it was a lawful act,
11. but a closer look at the incident proves them wrong.
12. The evidence so far indicates that the U.S. murdered Osama.
13. The most obvious breach of international law perpetrated by the U.S. is the Americans’ entry into Pakistan, which has since claimed it knew nothing about the operation.
14. If true,
15. the U.S. would have violated international law simply
16. by sending its forces into Pakistan.
17. A state’s sovereignty is absolute;
18. no other country’s armed forces can enter without authorization.
19. The killing would be lawful
20. if it occurred during an armed conflict
21. and if bin Laden was a combatant taking part in the armed conflict.
22. Armed conflicts, both internal and international, are governed by international humanitarian law—LRL—IL—RRL—, which applies regardless of the legality of the war.
23. An international armed conflict is one that takes place between two states,
24. and an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists.
25. In both cases, IHL forbids the killing of non-combatants.
26. The International Committee of the Red Cross, the organization responsible for the rules of IHL, defines a non-combatant in an international armed conflict as a person who is not a member of the state’s armed forces.
27. In an internal armed conflict, a non-combatant is a person who is not a member of the state’s armed forces or a member of an armed group.
28. An individual is a member of an armed group
29. if his or her continuous function is to take part in the conflict.
30. Because the killing took place in Pakistan,
31. the U.S. can hardly argue
32. that the act occurred as part of an international armed conflict
33. since it is not,
34. and does not claim to be, at war with Pakistan.
35. Although some people may argue
36. that the killing took place as part of the “war on terror,”
37. “terror is clearly not a state.
38. And while the Navy SEALs are an armed group,
39. it would be difficult to argue they were taking part in an internal armed conflict in Pakistan.
40. Al-Qaeda, of which bin Laden was the leader, could, however, be considered an armed group.
41. If we argue
that America was in the midst of an armed conflict with Al-Qaeda.
when it killed bin Laden,
then the next step is to examine the killing itself.
As I stated earlier,
IHL forbids the killing of all noncombatants.
Bin Laden could be considered a combatant as a member of Al-Qaeda.
That being said,
even if a person is considered a combatant under IHL,
you can't just walk up
and shoot him or her.
The problem with this argument is that the war on terror is not, legally speaking, a war.
It is an ambiguous state of affairs that escapes any legal definition.
yet seemingly allows the U.S. government to kill or arrest whomsoever it chooses.
For example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war,
and then having to abide by the rules of IHL concerning their treatment,
the U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees.
These terms are not found in international law.
There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942.
The U.S. put out an arrest warrant against bin Laden in 2000.
The U.S. could easily have either asked Pakistan's permission to enter the country,
or requested
that bin Laden be extradited to the U.S. to face the charges against him.
However, if Pakistan refused both requests,
then the U.S. would have no legal recourse.
That is where the law has its limits.
The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009,
but to no avail.
because his country is keeping him safe.
Spain also fought for two years to have Chilean General Pinochet extradited from Britain to Spain to face charges,
but Britain refused
and eventually allowed Pinochet to return home.
In neither case did armed forces enter another state's territory to arrest or kill the accused.
When we look at the facts,
Obama sent his Navy SEALs into another state's territory with the order to kill a man.
They claim
he resisted arrest,
but admit he was unarmed.
They managed to arrest the other members of his family present in the compound.
The law changes constantly,
and perhaps new laws will be written that will better frame this so-called "war on terror."
But when you look at the laws of today,
the U.S. committed murder,
plain and simple.

IV.1.1.4.4 ATTITUDE AND POLARITY (INVOCATIONS)

Coding Scheme:
positive affect
negative affect
positive judgment
negative judgment
positive appreciation
negative appreciation

[1] Osama bin Laden's death was murder,
plain and simple.
that U.S. Navy SEALs had killed Osama bin Laden,
and Americans rejoiced.
following Obama’s pronouncement that justice had been done.

But had it? It is a complex question with a complex answer, but one that must be addressed.

After all, the security of our democracies is based on the rule of law.

The U.S. is claiming it was a lawful act, but a closer look at the incident proves them wrong.

The evidence so far indicates that the U.S. murdered Osama.

The most obvious breach of international law perpetrated by the U.S. is the Americans’ entry into Pakistan, which has since claimed it knew nothing about the operation.

If true, the U.S. would have violated international law simply by sending its forces into Pakistan.

A state’s sovereignty is absolute; no other country’s armed forces can enter without authorization.

The killing would be lawful if it occurred during an armed conflict and if bin Laden was a combatant taking part in the armed conflict.

Armed conflicts, both internal and international, are governed by international humanitarian law—LRB--IHL--RRB-- which applies regardless of the legality of the war.

An international armed conflict is one that takes place between two states, and an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists.

In both cases, IHL forbids the killing of non-combatants.

The International Committee of the Red Cross, the organization responsible for the rules of IHL, defines a non-combatant in an international armed conflict as a person who is not a member of the state’s armed forces.

In an internal armed conflict, a non-combatant is a person who is not a member of the state’s armed forces or a member of an armed group.

An individual is a member of an armed group if his or her continuous function is to take part in the conflict.

Because the killing took place in Pakistan, and an internal armed conflict is one that takes place between a state and an armed group, or between two armed groups where a certain level of violence and organization exists.

If true, the act occurred as part of an international armed conflict.

Since it is not, and does not claim to be, at war with Pakistan.

Although some people may argue that the killing took place as part of the war on terror, "terror is clearly not a state.

And while the Navy SEALs are an armed group, it would be difficult to argue they were taking part in an internal armed conflict in Pakistan.

Al-Qaeda, of which bin Laden was the leader, could, however, be considered an armed group.

If we argue that America was in the midst of an armed conflict with Al-Qaeda when it killed bin Laden, then the next step is to examine the killing itself.

As I stated earlier, IHL forbids the killing of all noncombatants.

Bin Laden could be considered a combatant as a member of Al-Qaeda.

That being said, even if a person is considered a combatant under IHL, you can’t just walk up and shoot him or her.

The problem with this argument is that the war on terror is not, legally speaking, a war.

It is an ambiguous state of affairs that escapes any legal definition, yet seemingly allows the U.S. government to kill or arrest whomsoever it chooses.

For example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war, and then having to abide by the rules of IHL concerning their treatment, the U.S. called them illegal enemy combatants, unlawful combatants, or high-value detainees.

These terms are not found in international law.

There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942.

The U.S. put out an arrest warrant against bin Laden in 2000.

The U.S. could easily have either asked Pakistan’s permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him.

However, if Pakistan refused both requests,
then the U.S. would have no legal recourse.
That is where the law has its limits.
The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009,
but to no avail because his country is keeping him safe.
Spain also fought for two years to have Chilean General Pinochet extradited from Britain to Spain to face charges,
but Britain refused and eventually allowed Pinochet to return home.
In neither case did armed forces enter another state’s territory to arrest or kill the accused.
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An individual is a member of an armed group if his or her continuous function is to take part in the conflict. Although some people may argue that the killing took place as part of the “war on terror,” terror is clearly not a state. And while the Navy SEALs are an armed group, it would be difficult to argue they were taking part in an internal armed conflict in Pakistan.

Al-Qa`ida, of which bin Laden was the leader, could, however, be considered an armed group. If we argue that America was in the midst of an armed conflict with Al-Qa`ida when it killed bin Laden, then the next step is to examine the killing itself. As I stated earlier, IHL prohibits the killing of all noncombatants.

Bin Laden could be considered a combatant as a member of Al-Qa`ida. That being said, even if a person is considered a combatant under IHL, you can’t just walk up and shoot him or her. The problem with this argument is that the war on terror is not, legally speaking, a war. It is an ambiguous state of affairs that escapes any legal definition yet seemingly allows the U.S. government to kill or arrest whoever it chooses.

For example, instead of referring to the individuals captured in Afghanistan and Iraq as prisoners of war, and then having to abide by the rules of IHL concerning their treatment, the U.S. calls them illegal enemy combatants, unlawful combatants, or high-value detainees. These terms are not found in international law.

There exists an extradition treaty between the U.S. and Pakistan that has been in force since 1942. The U.S. put out an arrest warrant against bin Laden in 2000. The U.S. could easily have either asked Pakistan’s permission to enter the country, or requested that bin Laden be extradited to the U.S. to face the charges against him.

However, if Pakistan refused both requests, then the U.S. could have had legal recourse. That is where the law has its limits.

The situation is similar to that of President Omar Bashir of Sudan, whom the International Criminal Court has been trying to bring to justice since 2009, but to no avail because his country is keeping him safe.

Spain also fought for two years to have Chilean General Pinochet extradited from Britain to Spain to face charges, but Britain refused and eventually allowed Pinochet to return home.

In neither case did armed forces enter another state’s territory to arrest or kill the accused.

When we look at the facts, Obama sent his Navy SEALs into another state’s territory with the order to kill a man. They failed; he resisted arrest, but admit he was unarmed.

They managed to arrest the other members of his family present in the compound. The law changes constantly, and perhaps new laws will be written that will better frame this so-called “war on terror.” But when you look at the laws of today, the U.S. committed murder, plain and simple.
### IV.1.2 FOR ARTICLES

### IV.1.2.1 THE NY TIMES COLUMN

#### IV.1.2.1.1 POLARITY AND IDEATIONAL ENTITIES

**Coding Scheme:**

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>I want law/justice/evidence memory , and justice , and revenge .</td>
<td></td>
</tr>
<tr>
<td>When you re dealing with a mass [bin Laden] murderer who bragged about incinerating thousands of Americans [bin Laden] and planned to kill countless more [bin Laden] .</td>
<td></td>
</tr>
<tr>
<td>that seems like the only civilized [we/us] and morally [we/us] sound [semiotic] response .</td>
<td></td>
</tr>
<tr>
<td>We briefly celebrated one of the few clear-cut [bin Laden Killing] military/victories [U.S. Officials/Agents] we ve had in a long time , a win [U.S. Officials/Agents] that made us feel [bin Laden Killing] like Americans again [email [we/us] and strong [we/us] and capable [we/us] of finding our enemies and striking back at them without getting trapped in multitrillion-dollar Groundhog Day occupations [Other Political Entities] .</td>
<td></td>
</tr>
<tr>
<td>But within days , Naval Seal-gazing shifted to navel-gazing [U.S. Officials/Agents] .</td>
<td></td>
</tr>
<tr>
<td>There was the bad [Other Political Entities] comedy of solipsistic [Other Political Entities] Republicans with wounded [Obama] egos trying to make it about how right they were and whining [Obama] that George W. Bush was due more credit [Other political] .</td>
<td></td>
</tr>
<tr>
<td>Their attempt to renew the debate about torture [Obama] is itself torture [Other Political Entities] .</td>
<td></td>
</tr>
<tr>
<td>Whereas the intelligence work that led to the destruction of Bin Laden [U.S. Officials/Agents] was begun in the Bush administration ,</td>
<td></td>
</tr>
<tr>
<td>the cache of schemes taken from Osama s Pakistan house debunked [Other Political Entities] the fanciful [semiotic] narrative that the Bush crew pushed [Other Political Entities] : that Osama was stuck in a cave [bin Laden] unable [bin Laden] to communicate , increasingly irrelevant [bin Laden] and a mere symbol , rather than operational .</td>
<td></td>
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<tr>
<td>Osama , in fact , was at the helm [bin Laden] , spending his days whipping up bloody schemes to kill more Americans [bin Laden] .</td>
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<tr>
<td>In another inane debate [voices against killing] last week , many voices suggested</td>
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<tr>
<td>that decapitating the head [bin Laden] of a deadly [Al-Qaeda] terrorist network was some sort of injustice [U.S. Officials/Agents] .</td>
<td></td>
</tr>
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<td>Taking offense [voices for killing] after Ban Ki-moon , the United Nations secretary general , said</td>
<td></td>
</tr>
<tr>
<td>he was much relieved [bin Laden Killing] at the news of Bin Laden s death ,</td>
<td></td>
</tr>
<tr>
<td>Kenneth Roth , the executive director of Human Rights Watch , posted the Twitter message :</td>
<td></td>
</tr>
<tr>
<td>Ban Ki-moon wrong [voices for killing] on Osama bin Laden :</td>
<td></td>
</tr>
<tr>
<td>It s not justice [U.S. Officials/Agents] for him to be killed</td>
<td></td>
</tr>
<tr>
<td>even if justified</td>
<td></td>
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<tr>
<td>; no trial , conviction [U.S government] .</td>
<td></td>
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<tr>
<td>I leave it to subtler [generic] minds to parse the distinction between what is just and what is justified [voices against killing] .</td>
<td></td>
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<tr>
<td>When Angela Merkel , the German chancellor , said</td>
<td></td>
</tr>
<tr>
<td>she was glad [bin Laden Killing] Bin Laden had been killed ,</td>
<td></td>
</tr>
<tr>
<td>a colleague called such talk medieval [semiotic] .</td>
<td></td>
</tr>
<tr>
<td>Christophe Barbier , editor of the centrist French weekly L Express , warned :</td>
<td></td>
</tr>
<tr>
<td>To cry one s joy in the streets of our cities [voices for killing] is to ape the turbaned barbarians [Al-Qaeda] who danced the night of Sept. 11 ;</td>
<td></td>
</tr>
<tr>
<td>Those who celebrated on Sept. 11 were applauding [bin Laden] the slaughter of American innocents [Al-Qaeda] .</td>
<td></td>
</tr>
<tr>
<td>When college kids [voices for killing] spontaneously [voices for killing] streamed out Sunday night to the White House</td>
<td></td>
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<tr>
<td>ground zero and elsewhere .</td>
<td></td>
</tr>
<tr>
<td>they were the opposite of bloodthirsty [voices for killing] ;</td>
<td></td>
</tr>
<tr>
<td>they were happy [bin Laden Killing] that one of the most certifiably evil figures [bin Laden] of our time was no more .</td>
<td></td>
</tr>
<tr>
<td>Unlike the president and the Navy Seals , who performed with steely finesse [Obama] , Brennan was overwrought [bin</td>
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</tbody>
</table>
### IV.1.2.1.2 EXPLICITNESS (2 CHOICES) AND IDEATIONAL ENTITIES

<table>
<thead>
<tr>
<th>Coding Scheme:</th>
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<tbody>
<tr>
<td>invoke</td>
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<tr>
<td>inscribe</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Killing Evil</em> [bin Laden] Doesn’t Make Us Evil [we/us].</td>
</tr>
<tr>
<td>2</td>
<td><em>I want</em> [law/justice/evidence] memory, and justice, and revenge.</td>
</tr>
<tr>
<td>3</td>
<td>When you’re dealing with a mass [bin Laden] murderer who bragged about incinerating thousands of Americans [bin Laden] and planned to kill countless more [bin Laden].</td>
</tr>
<tr>
<td>4</td>
<td>That seems like the only civilized [we/us] and morally [we/us] sound [semiotic] response.</td>
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<tr>
<td>5</td>
<td>We briefly celebrated one of the few clear-cut [bin Laden killing] military victories [U.S. Officials/Agents] we’ve had in a long time, a win [U.S. Officials/Agents] that made us feel [bin Laden killing] like Americans again smart [we/us] and strong [we/us] and capable [we/us] of finding our enemies and striking back at them without getting trapped in multitrillion-dollar Groundhog Day occupations [Other political].</td>
</tr>
<tr>
<td>6</td>
<td>But within days, Naval SEAL-gazing shifted to navel-gazing [U.S. Officials/Agents].</td>
</tr>
<tr>
<td>7</td>
<td>There was the bad [Other Political Entities] comedy of solipsistic [Other political] Republicans with wounded [Obama] egos trying to make it about how right they were and whining [Obama] that George W. Bush was due more credit [Other Political Entities].</td>
</tr>
<tr>
<td>8</td>
<td>Their attempt to renew the debate about torture [Obama] is itself torture [Other Political Entities].</td>
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<tr>
<td>9</td>
<td>Whereas the intelligence work that led to the destruction of Bin Laden [U.S. Officials/Agents] was begun in the Bush administration.</td>
</tr>
<tr>
<td>10</td>
<td>The cache of schemes taken from Osama’s Pakistan house debunked [Other Political Entities] the fanciful [semiotic] narrative that the Bush crew pushed [Other political]: that Osama was stuck in a cave [bin Laden] unable [bin Laden] to communicate, increasingly irrelevant [bin Laden] and a mere symbol, rather than operational [bin Laden].</td>
</tr>
<tr>
<td>11</td>
<td>Osama, in fact, was at the helm [bin Laden], spending his days whipping up bloody schemes to kill more Americans [bin Laden].</td>
</tr>
<tr>
<td>12</td>
<td>In another inane debate [voices against killing] last week, many voices suggested</td>
</tr>
<tr>
<td>13</td>
<td>that decapitating the head [bin Laden] of a deadly [Al-Qaeda] terrorist network was some sort of injustice [U.S. Officials/Agents].</td>
</tr>
<tr>
<td>14</td>
<td>Taking offense [voices for killing] after Ban Ki-moon, the United Nations secretary general, said</td>
</tr>
<tr>
<td>15</td>
<td>he was much relieved [bin Laden killing] at the news of Bin Laden’s death.</td>
</tr>
<tr>
<td>16</td>
<td>Kenneth Roth, the executive director of Human Rights Watch, posted the Twitter message:</td>
</tr>
<tr>
<td>17</td>
<td>Ban Ki-moon wrong [voices for killing] on Osama bin Laden:</td>
</tr>
</tbody>
</table>
IV.1.2.1.3 ATTITUDE AND POLARITY (INSCRIPTIONS)

Coding Scheme:

- **positive affect**
- **negative affect**
- **positive judgment**
- **negative judgment**
- **positive appreciation**
- **negative appreciation**

[3] When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more.
[4] that seems like the only civilized and morally sound response.
[5] We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again smart and strong and capable of finding our enemies and striking back at them without getting trapped in multillon-dollar Groundhog Day occupations.
[7] There was the bad comedy of solipsistic Republicans with wounded egos trying to make it about how right they were and whining that George W. Bush was due more credit.
[8] Their attempt to renew the debate about torture is itself torture.
[9] Whereas the intelligence work that led to the destruction of Bin Laden was begun in the Bush administration,
[10] the cache of schemes taken from Osama’s Pakistan house debunked the fanciful narrative that the Bush crew pushed: that Osama was stuck in a cave, unable to communicate, increasingly irrelevant and a mere symbol, rather than operational.
[11] Osama, in fact, was at the helm, spending his days whipping up bloody schemes to kill more Americans.
[12] In another memo debate last week, many voices suggested that decapitating the head of a deadly terrorist network was some sort of injustice.
[13] Taking offense after Ban Ki-moon, the United Nations secretary general, said he was much relieved at the news of Bin Laden’s death,
[14] Ban Ki-moon wrong on Osama bin Laden:
[15] It’s not justice for him to be killed.
[16] when college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere,
[17]845,000 Americans again smart and strong in our cities.
[18] When Angela Merkel, the German chancellor, said she was glad Bin Laden had been killed,
[19] a colleague called such talk medieval.
[20] Christophe Barbier, editor of the centrist French weekly L’Express, warned:
[21] To cry one’s joy in the streets of our cities is to ape the turbaned barbarians who danced the night of Sept. 11.
[22] To cry one’s joy in the streets of our cities is to ape the turbaned barbarians who danced the night of Sept. 11.
[23] Those who celebrated on Sept. 11 were applauding the slaughter of American innocents.
[24] When college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere,
[25] they were the opposite of bloodthirsty:
[26] they were happy that one of the most certifiably evil figures of our time was no more.
[27] The confused image of Bin Laden as a victim was exacerbated by John Brennan, the Obama national security aide who interpersonally presented an inaccurate portrait of what had happened on the third floor in Abbottabad.
[28] Unlike the president and the Navy Seals, who performed with steely finesse, Brennan was overwrought, exaggerating the narrative to demonize the demon.
[29] The White House had to backtrack from Brennan’s contentions that Osama was hiding behind women who were put in front of him as a shield and that he died after resisting in a firefight.
[30] It may be that some administration officials have taken Dick Cheney’s belittling so much to heart that they are still reluctant to display effortless macho.
[31] Liberal guilt may have its uses,
[32] but it should not be wasted on this kill-mission.
[33] The really insane assumption behind some of the second-guessing is that killing Osama somehow makes us like Osama,
[34] as if all killing is the same.
[35] Only fools or knaves would argue that we could fight Al Qaeda’s violence non-violently.
[36] President Obama was prepared to take a life.
[37] not only to average American lives already taken
[38] but to deter the same killer from taking any more.
[39] Aside from Bin Laden’s plotting, his survival and his legend were inspirations for more murder.
[40] If stealth bombers had dropped dozens of 2,000-pound bombs and wiped out everyone,
[41] no one would have been debating whether Osama was armed.
[42] The president chose the reckless option presented to him.
[43] but one that spared nearly all the women and children at the compound, and anyone in the vicinity.
[44] Unlike Osama, the Navy Seals took great care not to harm civilians.
[45] they shot Bin Laden’s youngest wife in the leg
[46] and carried two young girls out of harm’s way
[47] before killing Osama.
[48] Morally and operationally, this was counterterrorism at its finest.
[49] We have nothing to apologize for.

IV.1.2.1.4 ATTITUDE AND POLARITY (INVOCATIONS)
The president no one would have been debating whether Osama was armed. If stealth bombers had dropped dozens of 2,000-pound bombs and wiped out everyone, no one would have been debating whether Osama was armed. But within days, Naval Seal-gazing shifted to navel-gazing.

When Angela Merkel, the German chancellor, said I leave it to subtler minds to parse the distinction between what is just and what is justified, she was glad Bin Laden had been killed, but it should not be... The really insane assumption behind some of the second-guessing is that killing Osama somehow makes us like Osama, as if all killing is the same.

Ban Ki-moon was much relieved at the news of Bin Laden's death, as if all killing is the same. Liberal guilt may have its uses, but it should not be wasted on this kill-mission. The really insane assumption behind some of the second-guessing is that killing Osama somehow makes us like Osama, as if all killing is the same.
but one that spared nearly all the women and children at the compound, and anyone in the vicinity.

Unlike Osama, the Navy Seals took great care not to harm civilians. They shot Bin Laden’s youngest wife in the leg and carried two young girls out of harm’s way before killing Osama.

Morally and operationally, this was counterterrorism at its finest. We have nothing to apologize for.

### IV.1.2.1.5 ENGAGEMENT (5 CHOICES)

<table>
<thead>
<tr>
<th>Coding Scheme:</th>
<th>monoglossic</th>
<th>disclaim</th>
<th>proclaim</th>
<th>entertain</th>
<th>entitle</th>
</tr>
</thead>
</table>

2. I want memory, and justice, and revenge.
3. When you’re dealing with a mass murderer who bragged about incinerating thousands of Americans and planned to kill countless more,
4. that seems like the only civilized and morally sound response.
5. We briefly celebrated one of the few clear-cut military victories we’ve had in a long time, a win that made us feel like Americans again smart and strong and capable of finding our enemies and striking back at them without getting trapped in multitrillion-dollar Groundhog Day occupations.
6. But within days, Naval Seal-gazing shifted to navel-gazing.
7. There was the bad comedy of solipsistic Republicans with wounded egos trying to make it about how right they were and whining that George W. Bush was due more credit.
8. Their attempt to renew the debate about torture is itself torture.
9. Whereas the intelligence work that led to the destruction of Bin Laden was begun in the Bush administration,
10. the cache of schemes taken from Osama’s Pakistan house debunked the fanciful narrative that the Bush crew: that Osama was stuck in a cave unable to communicate, increasingly irrelevant and a mere symbol, rather than operational.
11. Osama, in fact, was at the helm, spending his days whipping up bloody schemes to kill more Americans.
12. In another inane debate last week, the Bush crew: that decapitating the head of a deadly terrorist network was some sort of injustice.
13. Taking offense after Ban Ki-moon, the United Nations secretary general:
14. he was much relieved at the news of Bin Laden’s death.
15. Kenneth Roth, the executive director of Human Rights Watch: ban_ki_moon_wro the Twitter message:
16. Ban Ki-moon wrong on Osama bin Laden:
17. It’s not justice for him to be killed even if justified.
18. when Angela Merkel, the German chancellor: ted:
19. said she was glad Bin Laden had been killed,
20. a colleague: that such talk medieval:
21. To cry one’s joy in the streets of our cities is to ape the turbaned barbarians who danced the night of Sept. 11.
22. Those who celebrated on Sept. 11 were applauding the slaughter of American innocents.
23. When college kids spontaneously streamed out Sunday night to the White House, ground zero and elsewhere,
24. they were the opposite of bloodthirsty:
25. they were happy that one of the most certifiably evil figures of our time was no more.
26. The White House had to backtrack from Brennan’s contentions that Osama had been hiding behind women who were put in front of him as a shield and that he died after resisting in a firefight.
27. Unlike the president and the Navy Seals, who performed with steely finesse, Brennan was overwrought, exaggerating the narrative to demonize the demon.
28. The House had to backtrack from Brennan’s contentions that Osama was hiding behind women who were put in front of him as a shield and that he died after resisting in a firefight.
29. It may be that some administration officials have taken Dick Cheney’s belittling so much to heart that they are still reluctant to display effortless macho.
30. Liberal guilt may have its uses.
31. but it should not be wasted on this kill-mission.
The really insane assumption behind some of the second-guessing is that killing Osama somehow makes us like Osama, as if all killing is the same.

Only fools or knaves would argue that we could fight Al Qaeda's violence non-violently.

President Obama was prepared to take a life not only to avenge American lives already taken but to deter the same killer from taking any more.

Aside from Bin Laden's plotting, his survival and his legend were inspirations for more murder.

If stealth bombers had dropped dozens of 2,000-pound bombs and wiped out everyone, no one would have been debating whether Osama was armed.

The president chose the riskiest option presented to him, but one that spared nearly all the women and children at the compound, and anyone in the vicinity.

Unlike Osama, the Navy Seals took great care not to harm civilians they shot Bin Laden's youngest wife in the leg and carried two young girls out of harm's way before killing Osama.

Morally and operationally, this was counterterrorism at its finest.

We have nothing to apologize for.

---

### IV.1.2.2.1 POLARITY AND IDEATIONAL ENTITIES

**Coding Scheme:**

<table>
<thead>
<tr>
<th>Positive</th>
<th>Negative</th>
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<tbody>
<tr>
<td>Justice is done [bin Laden Killing] :</td>
<td></td>
</tr>
<tr>
<td>Osama bin Laden is paid back in his own coin [bin Laden] .</td>
<td></td>
</tr>
<tr>
<td>In an undeclared war against shadowy [generic] foes, the long years of the fight [Other Entities] do not often give the nation a moment of victorious exultation [bin Laden Killing] .</td>
<td></td>
</tr>
<tr>
<td>But the daring [U.S. Officials/Agents] raid by American special operations forces that rid the world of Osama bin Laden is such a moment [bin Laden Killing] .</td>
<td></td>
</tr>
<tr>
<td>Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news, this is not like August 1945 when the announcement of Japan's surrender led to unbridled [ij] [Other governments] across the country.</td>
<td></td>
</tr>
<tr>
<td>The celebration [bin Laden Killing] then was about an end to the killing.</td>
<td></td>
</tr>
<tr>
<td>No such hope [generic] graces the celebration now.</td>
<td></td>
</tr>
<tr>
<td>But it is a great [bin Laden Killing] victory [U.S. Officials/Agents] nonetheless -- and something more than that [bin Laden Killing] .</td>
<td></td>
</tr>
<tr>
<td>As President Barack Obama said late Sunday from the White House, 'Justice has been done [U.S. government]' .</td>
<td></td>
</tr>
<tr>
<td>Americans have waited 10 years for this day [bin Laden Killing] and are entitled to be glad [bin Laden Killing] that the mastermind of 9/11 has been made to pay for his evil [bin Laden] .</td>
<td></td>
</tr>
<tr>
<td>That justice was meted out [U.S. Officials/Agents] by Navy SEALs in a foreign country, without U.S. casualties [U.S. Officials/Agents], is an added satisfaction [bin Laden Killing] .</td>
<td></td>
</tr>
<tr>
<td>As no other way could have done, the terrorists of al-Qaida have been put on notice.</td>
<td></td>
</tr>
<tr>
<td>Their leader is dead [Al-Qaeda] .</td>
<td></td>
</tr>
<tr>
<td>Buried at sea by his U.S. conquerors [U.S. Officials/Agents], he leaves no shrine where followers might worship him [bin Laden killing] .</td>
<td></td>
</tr>
<tr>
<td>They are left with even more reason to be looking over their shoulders [bin Laden killing] .</td>
<td></td>
</tr>
<tr>
<td>Discouragement [Al-Qaeda] is al-Qaeda's alone.</td>
<td></td>
</tr>
<tr>
<td>Still, in warning against reprisals [Al-Qaeda], CIA Director Leon Panetta said, ''Bin Laden is dead.</td>
<td></td>
</tr>
<tr>
<td>Al-Qaeda is not [Al-Qaeda]. ''</td>
<td></td>
</tr>
<tr>
<td>That is a timely caution [U.S. Officials/Agents] and an invitation to renewed vigilance.</td>
<td></td>
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</tbody>
</table>
but not an excuse to be fearful [Al-Qaeda] .
While the effect of bin Laden ‘s death on al-Qaida ‘s operational capacity remains unclear [bin Laden killing] ,
the deathblow to their leader [U.S. government] offered the terrorists no new excuse to attack America .
That has always been their vowed intent [Al-Qaeda] .
In that regard , nothing has changed .
For their part , the Pakistanis have some explaining [Other Governments] to do .
What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions [Other Governments] and debate .
Americans are a good people .
Forgiveness runs deep in their faith traditions
and they do not normally revel in the death of even the worst [generic] criminals .
But they are also a fair-minded and practical people who recognize justice
and will rightly see the death of this most evil [bin Laden] of men as a surgical act to cut out a cancer in order to make the world a healthier [generic] place .
The morality of the moment is clear [law/justice/evidence] .

### IV.1.2.2.2 EXPLICITNESS (2 CHOICES) AND IDEATIONAL ENTITIES

| Coding Scheme: | 
|-----------------|---|
| invoke         | inscribe |

1. Justice is done [bin Laden Killing].
2. Osama bin Laden is paid back in his own coin [bin Laden].
3. In an undeclared war against shadowy [generic] foes , the long years of the fight [Other Entities] do not often give the nation a moment of victorious exultation [bin Laden killing].
4. But the daring [U.S. Officials/Agents] raid by American special operations forces that rid the world of Osama bin Laden is such a moment [bin Laden Killing].
5. Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news ,
6. this is n't like August 1945 when the announcement of Japan ‘s surrender led to unbridled joy across the country .
7. The celebration [bin Laden killing] then was about an end to the killing .
8. No such hope [generic] graces the celebration now ,
9. but it is a great [bin Laden killing] victory [U.S. Officials/Agents] nonetheless --
10. and something more than that [bin Laden Killing].
11. As President Barack Obama said late Sunday from the White House ,
12. "Justice has been done [U.S. government] ."
13. Americans have waited 10 years for this day [bin Laden Killing].
14. and are entitled to be glad [bin Laden killing] that the mastermind of 9/11 has been made to pay for his evil [bin Laden] .
17. As no other way could have done ,
18. the terrorists of al-Qaida have been put on notice .
19. Their leader is dead [Al-Qaeda].
20. Buried at sea by his U.S. conquerors [U.S. Officials/Agents] ,
21. he leaves no shrine where followers might worship him [bin Laden Killing].
22. They are left with even more reason to be looking over their shoulders [bin Laden Killing].
23. Discouragement [Al-Qaeda] is al-Qaida ‘s alone .
24. Still , in warning against reprisals [generic] , CIA Director Leon Panetta said ,
25. " Bin Laden is dead .
26. Al-Qaeda is not [Al-Qaeda] ."
27. That is a timely caution [U.S. Officials/Agents] and an invitation to renewed vigilance ,
28. but not an excuse to be fearful [Al-Qaeda].
29. While the effect of bin Laden ‘s death on al-Qaida ‘s operational capacity remains unclear [bin Laden killing] ,
30. the deathblow to their leader [U.S. government] offered the terrorists no new excuse to attack America .
31. That has always been their vowed intent [Al-Qaeda].
In that regard, nothing has changed. For their part, the Pakistanis have some explaining to do. What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions and debate.

Americans are a good people. Forgiveness runs deep in their faith traditions and they do not normally revel in the death of even the worst criminals. But they are also a fair-minded and practical people who recognize justice and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.

The morality of the moment is clear. Americans are free to applaud the U.S. forces who bravely did their duty and the commander in chief who sent them into battle to avenge the innocent dead of 9/11.

IV.1.2.2.3 ATTITUDE AND POLARITY (INSCRIPTIONS)

Coding Scheme:
- positive affect
- negative affect
- positive judgment
- negative judgment
- positive appreciation
- negative appreciation

[1] Justice is done:
[2] Osama bin Laden is paid back in his own coin.
[3] In an undeclared war against shadowy foes, the long years of the fight do not often give the nation a moment of victorious exultation.
[4] But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment.
[5] Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news,
[6] this isn’t like August 1945 when the announcement of Japan’s surrender led to unbridled joy across the country.
[7] The celebration then was about an end to the killing.
[8] No such hope graces the celebration now,
[9] but it is a great victory nonetheless --
[10] and something more than that.
[11] As President Barack Obama said late Sunday from the White House,
[12] "Justice has been done.
[13] Americans have waited 10 years for this day
[14] and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil.
[15] That justice was meted out by Navy SEALs in a foreign country, without U.S. casualties, is an added satisfaction.
[16] Something that seemed in short supply, good military intelligence, paved the way for American courage and expertise to do its job.
[17] As no other way could have done,
[18] the terrorists of al-Qaida have been put on notice.
[19] Their leader is dead.
[20] Buried at sea by his U.S. conquerors,
[21] he leaves no shrine where followers might worship him.
[22] They are left with even more reason to be looking over their shoulders.
[23] Discouragement is al-Qaida’s alone.
[24] Still, in warning against reprisals, CIA Director Leon Panetta said,
[25] "Bin Laden is dead."
[26] Al-Qaida is not."
[27] That is a timely caution and an invitation to renewed vigilance,
[28] but not an excuse to be fearful.
[29] While the effect of bin Laden’s death on al-Qaida’s operational capacity remains unclear,
[30] the deathblow to their leader offered the terrorists no new excuse to attack America.
[31] That has always been their vowed intent.
[32] In that regard, nothing has changed.
[33] For their part, the Pakistanis have some explaining to do.
[34] What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions and debate.
Americans are a good people. Forgiveness runs deep in their faith traditions and they do not normally revel in the death of even the worst criminals. But they are also a fair-minded and practical people who recognize justice and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.

The morality of the moment is clear. Americans are free to applaud the U.S. forces who bravely did their duty and the commander in chief who wisely sent them into battle to avenge the innocent dead of 9/11.

IV.1.2.4 ATTITUDE AND POLARITY (INVOCATIONS)

Coding Scheme:
- positive affect
- negative affect
- positive judgment
- negative judgment
- positive appreciation
- negative appreciation

1. Justice is done:
2. Osama bin Laden is paid back in his own coin.
3. In an undeclared war against shadowy foes, the long years of the fight do not often give the nation a moment of victorious exultation.
4. But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment.
5. Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news, this is not like August 1945 when the announcement of Japan’s surrender led to unbridled joy across the country.
6. The celebration then was about an end to the killing.
7. But it is a great victory nonetheless --
8. and something more than that.
9. As President Barack Obama said late Sunday from the White House, "Justice has been done."
10. Americans have waited 10 years for this day and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil.
11. Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news, this is not like August 1945 when the announcement of Japan’s surrender led to unbridled joy across the country.
12. The celebration then was about an end to the killing.
13. But it is a great victory nonetheless --
14. and something more than that.
15. As President Barack Obama said late Sunday from the White House, "Justice has been done."
16. Americans have waited 10 years for this day and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil.
17. But it is a great victory nonetheless --
18. and something more than that.
19. As President Barack Obama said late Sunday from the White House, "Justice has been done."
20. Buried at sea by his U.S. conquerors,
21. he leaves no shrine where followers might worship him.
22. They are left with even more reason to be looking over their shoulders.
23. Discouragement is al-Qaeda’s alone.
24. Still, in warning against reprisals, CIA Director Leon Panetta said,
25. "Bin Laden is dead.
26. Al-Qaeda is not.
27. That is a timely caution and an invitation to renewed vigilance,
28. but not an excuse to be fearful.
29. The effect of bin Laden’s death on al-Qaeda’s operational capacity remains unclear.
30. The deathblow to their leader offered the terrorists no new excuse to attack America.
31. That has always been their vowed intent.
32. In that regard, nothing has changed.
33. For their part, the Pakistanis have some explaining to do.
34. What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions and debate.
35. Americans are a good people.
36. Forgiveness runs deep in their faith traditions and they do not normally revel in the death of even the worst criminals.
37. But they are also a fair-minded and practical people who recognize justice.
38. and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a
healthier place.

[40] The morality of the moment is clear.
[41] Americans are free to applaud the U.S. forces who bravely did their duty and the commander in chief who wisely sent them into battle to avenge the innocent dead of 9/11.

IV.1.2.5 ENGAGEMENT (5 CHOICES)

Coding Scheme:

- monoglossic
- disclaim
- proclaim
- entertain
- attribute

[1] Justice is done:
[2] Osama bin Laden is paid back in his own coin.
[3] In an undeclared war against shadowy foes, the long years of the fight do not often give the nation a moment of victorious exultation.
[4] But the daring raid by American special operations forces that rid the world of Osama bin Laden is such a moment.
[5] Although Americans gathered spontaneously in places such as Ground Zero to celebrate the news,
[6] this is not like August 1945 when the announcement of Japan’s surrender led to unbridled joy across the country.
[7] The celebration then was about an end to the killing.
[8] No such hope graces the celebration now.
[9] But it is a great victory nonetheless—
[10] and something more than that.
[11] As President Barack Obama said late Sunday from the White House,
[12] “Justice has been done.”
[13] Americans have waited 10 years for this day
[14] and are entitled to be glad that the mastermind of 9/11 has been made to pay for his evil.
[15] That justice was meted out by Navy SEALs in a foreign country, without U.S. casualties, is an added satisfaction.
[16] Something that seemed in short supply, good military intelligence, paved the way for American courage and expertise to do its job.
[17] As no other way could have done,
[18] the terrorists of al-Qaida have been put on notice.
[19] Their leader is dead.
[20] Buried at sea by his U.S. conquerors,
[21] he leaves no shrine where followers might worship him.
[22] They are left with even more reason to be looking over their shoulders.
[23] Discouragement is al-Qaida’s alone.
[24] Still, in warning against reprisals, CIA Director Leon Panetta said,
[26] Al-Qaida is not.
[27] That is a timely caution and an invitation to renewed vigilance.
[28] But not an excuse to be fearful.
[29] While the effect of bin Laden’s death on al-Qaida’s operational capacity remains unclear,
[30] the deathblow to their leader offered the terrorists no new excuse to attack America.
[31] That has always been their vowed intent.
[32] In that regard, nothing has changed.
[33] For their part, the Pakistanis have some explaining to do.
[34] What bin Laden was doing holed up in the garrison town of Abbottabad will be the focus of future questions and debate.
[35] Americans are a good people.
[36] Forgiveness runs deep in their faith traditions
[37] and they do not normally revel in the death of even the worst criminals.
[38] But they are also a fair-minded and practical people who recognize justice
[39] and will rightly see the death of this most evil of men as a surgical act to cut out a cancer in order to make the world a healthier place.
[40] The morality of the moment is clear.
[41] Americans are free to applaud the U.S. forces who bravely did their duty and the commander in chief who wisely sent them into battle to avenge the innocent dead of 9/11.
IV.1.2.3 THE USA TODAY EDITORIAL

IV.1.2.3.1 POLARITY AND IDEATIONAL ENTITIES

<table>
<thead>
<tr>
<th>Coding Scheme:</th>
<th>positive</th>
<th>negative</th>
</tr>
</thead>
</table>

[2] Does it matter [semiotic] that Osama bin Laden was apparently unarmed when American commandos shot him to death and not, as initially reported, brandishing a weapon [bin Laden] and hiding behind a woman [bin Laden]?
[3] In a word, no, [semiotic].
[4] Whether judged by the formal rules of war, the pragmatic need to eliminate a threat [bin Laden Killing] or a gut-level hunger to deliver justice [U.S. government] for the mass [bin Laden] murder of 9/11,
[6] Still, a few voices are calling for an inquiry into how bin Laden was killed
[7] and questioning whether he could, and should, have been captured alive and put on trial [law/justice/evidence].
[8] The facts, the law and circumstances of the operation should put those questions to rest [semiotic].
[10] Two years later, he attacked two U.S. Embassies in East Africa,
[11] killing 220 people [bin Laden],
[12] including a dozen Americans;
[13] he followed up in 2000 with an attack on the USS Cole,
[14] killing 17 sailors [bin Laden].
[16] And in his sick mind [bin Laden] that was just a warm-up [bin Laden].
[17] He said
[18] he wanted [bin Laden] to kill 4 million Americans [bin Laden].
[20] But nothing will change the fact that justice was done [bin Laden Killing].
[21] Nor do the circumstances suggest any impropriety [U.S. Officials/Agents].
[22] When Navy SEALs, adrenalin pumping [U.S. Officials/Agents], burst into [U.S. Officials/Agents] bin Laden’s Pakistani lair on Sunday night,
[24] They shot their way upstairs [U.S. Officials/Agents].
[25] and into a room with the terrorist leader.
[26] They could not have known [U.S. Officials/Agents] whether he had a hidden weapon [bin Laden], a suicide vest [bin Laden] or a switch to blow them all away.
[27] Shooting to kill was the reasonable [semiotic] choice.
[28] If legal justifications are needed, they, too, are on the government’s side [U.S. government].
[29] On Sept. 18, 2001, Congress authorized the president [Obama] to use “all necessary” [Other Entities] and appropriate [Other Entities] force against those who plotted and carried out the 9/11 attacks, essentially a declaration of war.
[30] Shooting a lawful target and who more than bin Laden [bin Laden Killing] would qualify?
[31] is legal under international law
[32] except when that target is surrendering.
[33] Short of lying on the ground and waving a white flag, bin Laden was fair game [bin Laden].
[34] Some Muslim clerics are also complaining [law/justice/evidence].
[35] that bin Laden’s burial did not comply with Islam’s rules.
[36] In fact, he was treated with far more respect [U.S. Officials/Agents] in death than he ever showed to the living [bin Laden] swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice [U.S. Officials/Agents].
[37] Again, a well-considered choice [U.S. government].
[38] Any gravesite could have become a terrorist shrine.
[39] The only tough [law/justice/evidence] call is whether to release a photo of bin Laden’s corpse to prove he’s dead.
[40] Doing so would not silence the skeptics [voices against killing].
[41] as President Obama said Wednesday in an interview with CBS
[42] explaining his decision keep the photo private.
[44] Obama believes
[45] it would be effectively exploited [law/justice/evidence] by Islamist propagandists [Other Political Entities].
[46] It might well be [law/justice/evidence].
On the other hand, visual evidence could be demoralizing to bin Laden’s followers and helpful to U.S. credibility [U.S. government].

It’s hard to fault either choice.

But in close calls, it is usually best to err on the side of disclosure.

What’s not worth fretting over is whether bin Laden was treated properly, in life or in death.

He was owed nothing but an unpleasant ending.

### IV.1.2.3.2 EXPLICITNESS (2 CHOICES) AND IDEATIONAL ENTITIES

**Coding Scheme:**
- *invoke*
- *inscribe*

1. Our view: Armed or unarmed, bin Laden got what he deserved.
2. Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death and not, as initially reported, brandishing a weapon and hiding behind a woman?
3. In a word, no.
4. Whether judged by the formal rules of war, the pragmatic need to eliminate a threat or a gut-level hunger to deliver justice for the mass murder of 9/11, bin Laden deserved to die by any means.
5. Still, a few voices are calling for an inquiry into how bin Laden was killed and questioning whether he could, and should, have been captured alive and put on trial.
6. The facts, the law and circumstances of the operation should put those questions to rest.
8. Two years later, he attacked two U.S. Embassies in East Africa.
9. Killing 220 people, including a dozen Americans.
10. He followed up in 2000 with an attack on the USS Cole.
11. He was owed nothing but an unpleasant ending.
12. Nor do the circumstances suggest any matter.
13. But in close calls, it is usually best to err on the side of disclosure.
14. What’s not worth fretting over is whether bin Laden was treated properly, in life or in death.
15. He was owed nothing but an unpleasant ending.

---

[48] On the other hand, visual evidence could be demoralizing to bin Laden’s followers and helpful to U.S. credibility.

[49] It’s hard to fault either choice.

[50] But in close calls, it is usually best to err on the side of disclosure.

[51] What's not worth fretting over is whether bin Laden was treated properly, in life or in death.

[52] He was owed nothing but an unpleasant ending.
Doing so would not silence the skeptics [voices against killing].
as President Obama said Wednesday in an interview with CBS
explaining his decision keep the photo private.
The question is whether its release would hurt [law/justice/evidence] or help [law/justice/evidence] American objectives in the Muslim world.
Obama believes
it would be effectively exploited [law/justice/evidence] by Islamist propagandists [Other Political Entities].
It might well be [law/justice/evidence].
On the other hand, visual evidence could be demoralizing [law/justice/evidence] to bin Laden’s followers and helpful [law/justice/evidence] to U.S. credibility [U.S government].
It’s hard to fault [law/justice/evidence] either choice.
But in close calls [law/justice/evidence] it is usually best [semiotic] to err on the side of disclosure.
What’s not worth fretting [bin Laden killing] over is whether bin Laden was treated properly, in life or in death.
He was owed nothing but an unpleasant ending [bin Laden].

IV.1.2.3.3 ATTITUDE AND POLARITY (INSCRIPTIONS)

Coding Scheme:
- positive affect
- negative affect
- positive judgment
- negative judgment
- positive appreciation
- negative appreciation

1. Our view: Armed or unarmed, bin Laden got what he deserved.
2. Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death and not, as initially reported, brandishing a weapon and hiding behind a woman?
3. In a word, no.
4. Whether judged by the formal rules of war, the pragmatic need to eliminate a threat or a gut-level hunger to deliver justice for the mass murder of 9/11,
5. bin Laden deserved to die by any means necessary.
6. Still, a few voices are calling for an inquiry into how bin Laden was killed
7. and questioning whether he could, and should, have been captured alive and put on trial.
8. The facts, the law and circumstances of the operation should put those questions to rest.
10. Two years later, he attacked two U.S. Embassies in East Africa,
11. killing 220 people,
12. including a dozen Americans;
13. he followed up in 2000 with an attack on the USS Cole,
14. killing 17 sailors;
15. Then he engineered the incredible slaughter of 9/11.
16. And in his sick mind that was just a warm-up.
17. He said
18. he wanted to kill 4 million Americans.
19. Splitting hairs over how he died might be an interesting exercise for academics or a convenient tool of anti-American activists,
20. but nothing will change the fact that justice was done.
21. Nor do the circumstances suggest any impropriety.
22. When Navy SEALs, adrenalin pumping, burst into bin Laden’s Pakistani lair on Sunday night,
23. they faced gunfire.
24. They shot their way upstairs
25. and into a room with the terrorist leader.
26. They could not have known whether he had a hidden weapon, a suicide vest or a switch to blow them all away.
27. Shooting to kill was the reasonable choice.
28. If legal justifications are needed,
29. they, too, are on the government’s side.
30. On Sept. 18, 2001, Congress authorized the president to use “all necessary and appropriate” force against those “who plotted and carried out the 9/11 attacks, essentially a declaration of war.
31. Shooting a lawful target and who more than bin Laden would qualify?
32. is legal under international law
except when that target is surrendering.

Short of lying on the ground and waving a white flag, bin Laden was fair game.

Some Muslim clerics are also complaining.

that bin Laden’s burial did not comply with Islam’s rules.

In fact, he was treated with far more respect in death than he ever showed to the living swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice.

Again, a well-considered choice.

Any gravesite could have become a terrorist shrine.

The only tough call is whether to release a photo of bin Laden’s corpse to prove he’s dead.

Doing so would not silence the skeptics.

as President Obama said Wednesday in an interview with CBS

explaining his decision keep the photo private.

The question is whether its release would hurt or help American objectives in the Muslim world.

Obama believes

It would be effectively exploited by Islamist propagandists.

It might well be.

On the other hand, visual evidence could be demoralizing to bin Laden’s followers and helpful to U.S. credibility.

It’s hard to fault either choice.

But in close calls, it is usually best to err on the side of disclosure.

What’s not worth fretting over is whether bin Laden was treated properly, in life or in death.

He was owed nothing but an unpleasant ending.

IV.1.2.3.4 ATTITUDE AND POLARITY (INVOCATIONS)

Coding Scheme:

| positive affect     | negative affect     |
| positive judgment   | negative judgment   |
| positive appreciation| negative appreciation|

Our view: Armed or unarmed, bin Laden got what he deserved.

Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death and not, as initially reported, brandishing a weapon and hiding behind a woman?

In a word, no.

Whether judged by the formal rules of war, the pragmatic need to eliminate a threat or a gut-level hunger to deliver justice for the mass murder of 9/11,

bin Laden deserved to die by any means necessary.

Still, a few voices are calling for an inquiry into how bin Laden was killed and questioning whether he could, and should, have been captured alive and put on trial.

The facts, the law and circumstances of the operation should put those questions to rest.

Bin Laden declared war on the U.S. in a fatwa in 1996.

Two years later, he attacked two U.S. Embassies in East Africa,

killing 220 people.

including a dozen Americans.

he followed up in 2000 with an attack on the USS Cole.

killing 17 sailors.

Then he engineered the incredible slaughter of 9/11.

And in his sick mind that was just a warm-up.

He said he wanted to kill 4 million Americans.

Splitting hairs over how he died might be an interesting exercise for academics or a convenient tool of anti-American activists,

but nothing will change the fact that justice was done.

Nor do the circumstances suggest any impropriety.

When Navy SEALs, adrenalin pumping, burst into bin Laden’s Pakistani lair on Sunday night,

they faced gunfire.

They shot their way upstairs

and into a room with the terrorist leader.

They could not have known whether he had a hidden weapon, a suicide vest or a switch to blow them all away.
Shooting to kill was the reasonable choice.

If legal justifications are needed, they, too, are on the government’s side.

On Sept. 18, 2001, Congress authorized the president to use “all necessary and appropriate force against those” who plotted and carried out the 9/11 attacks, essentially a declaration of war.

Shooting a lawful target and who more than bin Laden would qualify?

is legal under international law except when that target is surrendering.

Short of lying on the ground and waving a white flag, bin Laden was fair game.

Some Muslim clerics are also complaining that bin Laden’s burial did not comply with Islam’s rules.

In fact, he was treated with far more respect in death than he ever showed to the living swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice.

Again, a well-considered choice.

Any gravesite could have become a terrorist shrine.

The only tough call is whether to release a photo of bin Laden’s corpse to prove he’s dead.

Doing so would not silence the skeptics, as President Obama said Wednesday in an interview with CBS explaining his decision to keep the photo private.

The question is whether its release would hurt or help American objectives in the Muslim world.

Obama believes it would be effectively exploited by Islamist propagandists.

It might well be.

On the other hand, visual evidence could be demoralizing to bin Laden’s followers and helpful to U.S. credibility.

It’s hard to fault either choice.

But in close calls, it is usually best to err on the side of disclosure.

What’s not worth fretting over is whether bin Laden was treated properly, in life or in death.

He was owed nothing but an unpleasant ending.

IV.1.2.3.5 ENGAGEMENT (5 CHOICES)

Coding Scheme:

monoglossic

disclaim

proclaim

entertain

attribute


[2] Does it matter that Osama bin Laden was apparently unarmed when American commandos shot him to death and not, as initially reported, brandishing a weapon and hiding behind a woman?

[3] In a word, no.

[4] Whether judged by the formal rules of war, the pragmatic need to eliminate a threat or a gut-level hunger to deliver justice for the mass murder of 9/11,

[5] bin Laden deserved to die by any means necessary.

[6] Still, a few voices are calling for an inquiry into how bin Laden was killed

[7] and questioning whether he could, and should, have been captured alive and put on trial.

[8] The facts, the law and circumstances of the operation need put those questions to rest.


[10] Two years later, he attacked two U.S. Embassies in East Africa.

[11] killing 220 people,

[12] including a dozen Americans;

[13] he followed up in 2000 with an attack on the USS Cole,


[16] And in his sick mind that was just a warm-up.

[17] He said he wanted to kill 4 million Americans.

[18] Splitting hairs over how he died might be an interesting exercise for academics or a convenient tool of anti-American activists.

[19] but nothing will change the fact that justice was done.

[20] Not do the circumstances suggest any impropriety.
When Navy SEALs, adrenalin pumping, burst into bin Laden’s Pakistani lair on Sunday night, they faced gunfire. They shot their way upstairs and into a room with the terrorist leader. They couldn’t have known whether he had a hidden weapon, a suicide vest or a switch to blow them all away. Shooting to kill was the reasonable choice. If legal justifications are needed, they too, are on the government’s side.

On Sept. 18, 2001, Congress authorized the president to use “all necessary and appropriate force against those” who plotted and carried out the 9/11 attacks, essentially a declaration of war. Shooting a lawful target and killing more than bin Laden would qualify? Legal under international law except when that target is surrendering. Short of lying on the ground and waving a white flag, bin Laden was fair game. Some Muslim clerics are also complaining that bin Laden’s burial did not comply with Islam’s rules. In fact, he was treated with far more respect in death than he ever showed to the living swiftly buried at sea after his body was cleaned and wrapped in accordance with Islamic practice.

Again, a well-considered choice. Any gravesite could have become a terrorist shrine. The only tough call is whether to release a photo of bin Laden’s corpse to prove he’s dead. Doing so would not silence the skeptics, as President Obama explained Wednesday in an interview with CBS explaining his decision keep the photo private.

The question is whether its release would hurt or help American objectives in the Muslim world. Obama believed it would be effectively exploited by Islamist propagandists. It might well be.

On the other hand, visual evidence could be demoralizing to bin Laden’s followers and helpful to U.S. credibility. It’s hard to fault either choice. But in close calls, it is usually best to err on the side of disclosure. What’s not worth fretting over is whether bin Laden was treated properly, in life or in death. He was owed nothing but an unpleasant ending.

IV.2 APPRAISAL FREQUENCIES

In this section, raw frequencies of APPRAISAL occurrences are given in the form of column charts.

IV.2.1 POLARITY AND EXPLICITNESS
IV.2.2 INVOCATIONS (3 CHOICES)

Whole Corpus

![Bar chart showing frequency of afford, flag, and provoke in the Whole Corpus.]

AGAINST Subcorpus

![Bar chart showing frequency of afford, flag, and provoke in the AGAINST Subcorpus.]

FOR Subcorpus

![Bar chart showing frequency of afford, flag, and provoke in the FOR Subcorpus.]

IV.2.3 ATTITUDE AND POLARITY
IV.2.4 UNMEDIATED INSCRIBED JUDGMENT

Whole Corpus

AGAINST Subcorpus

FOR Subcorpus
IV.2.5 ENGAGEMENT (5 CHOICES)

**Whole Corpus**

**AGAINST Subcorpus**

**FOR Subcorpus**
IV.2.6 ENGAGEMENT: HETEROGLOSSIC (8 CHOICES)

Whole Corpus

AGAINST Subcorpus
IV.2.7 ENTITY GROUPS TARGETED BY ATTITUDES
APPENDIX V  APPANN (USER’S GUIDE AND CD-ROM CONTENTS)

V.1  CD-ROM CONTENTS

The attached CD-ROM contains electronic copies of my thesis (in word and pdf formats), video tutorials of AppAnn, a copy of AppAnn 2.0 software and video files of AGAINST and FOR Flares.

AppAnn 2.0 Software can be found in the ‘AppAnn 2.0 Software’ folder. To use AppAnn 2.0, you should first copy the folder AppAnnTemp to your C:\ drive. AppAnn 2.0 is only tested on Windows 7. In order for AppAnn to work properly, there should also be at least 8 GB of physical memory and an average graphics card (for OpenGL operations).

Video tutorials of AppAnn can be found in the ‘Video Tutorials’ folder.

Animated Flares of AGAINST and FOR articles can be found in the folder ‘Corpus Flares’.

V.2  ANNOTATING (VIDEO TUTORIALS)

V.2.1  CREATING A NEW CORPUS

Creating a new corpus project can be easily achieved through AppAnn New Corpus Project Wizard. The creation of text corpus requires Stanford NLP tools. For copyright reasons, the Stanford tools are not included in the attached CD-ROM. However, they can be downloaded from:

http://nlp.stanford.edu/software/index.shtml

Make sure these tools are installed in your PC machine and Windows environment variables are set correctly. Note that Stanford NLP requires at least 2GB of memory to operate stably.

To learn about creating a new corpus in AppAnn 2.0, please have a look at the video tutorial file:

Tut1_Start_New_Corpus.mp4

under the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.
V.2.2 LOADING THE BIN LADEN KILLING CORPUS

In the next video tutorials, the bin Laden Killing corpus will be used mainly for illustrating various parts and tools of AppAnn 2.0. To learn about how to load and explore this corpus in AppAnn 2.0, please have a look at the video file

Tut2>Loading_Exploring_BLK_Corpus.mp4

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

V.2.3 DEFINING CLAUSE BOUNDARIES

Defining clauses is an important step before coding and visualizing discourse semantic features, particularly ENGAGEMENT. However, the process is still manual in AppAnn 2.0. Future work would involve defining clauses automatically depending on the Stanford NLP outputs, with the ability to correct the process’ errors.

To learn about defining clause boundaries in AppAnn 2.0, please watch the attached video file

Tut3>Defining_Clauses.mp4

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

V.2.4 PRONOUN AND COREFERENCE RESOLUTION

Pronoun Resolution is a useful tool in AppAnn 2.0, especially when coding for sources and targets of attitudes as will be seen in Section V.2.6. Pronouns are resolved automatically in AppAnn 2.0 through the Stanford Co-reference Resolution tool. However, since this automatic process is still a bit inaccurate, AppAnn allows you to correct the relations between nouns and pronouns manually. To learn about this, please have a look at the following video file

Tut4>Pronoun_Resolution.mp4
V.2.5 CONJUNCTION ANALYSIS

Coding a text for conjunction differs from coding it for attitude or engagement in that it involves (directional) relations between clauses. Coding conjunction in AppAnn 2.0 is as simple as two clicks. The following video file illustrates how.

Tut5_Conjunction.mp4

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

V.2.6 MANAGING CODING LAYERS

Before starting the coding process in AppAnn 2.0, you need to be familiar with how to manage (add, remove etc.) layers. The following video file illustrates this.

Tut6_Managing_Layers.mp4

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

V.2.7 CODING ATTITUDE

Coding for ATTITUDE in AppAnn 2.0 does not only involve choosing for attitudinal features but also for targets and sources of attitudes. This is crucial in this thesis as the interest is on couplings of APPRAISAL and IDEATION.

The following video file illustrates how to code for ATTITUDE in AppAnn

Tut7_Coding_Attitude.mp4

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.
You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

### V.2.8 CODING ENGAGEMENT

Coding for ENGAGEMENT is similar to coding attitude but with an important difference. The target of an engagement instance is not an ideational entity but a proposition. AppAnn 2.0 allows you to define the boundaries of this proposition, so the process of extracting couplings of ATTITUDE and ENGAGEMENT is more accurate. Coding ENGAGEMENT is illustrated in the next video file

![Tut8_Coding_Engagement.mp4](Tut8_Coding_Engagement.mp4)

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

### V.2.9 CODING PHASES/STAGES

Phases/Stages in AppAnn are treated as separate layers. This facilitates calculating associations between discourse semantic features/couplings and particular generic stages (or logogenetic moments). To learn how to code for phases/stages in AppAnn 2.0, please have a look at the following video file

![Tut9_Coding_Phases_Stages.mp4](Tut9_Coding_Phases_Stages.mp4)

You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

### V.2.10 GROUPING ENTITIES

Grouping sources and targets of attitudes simplify discussions and generalizations of discourse semantic patterns beyond a single text. In AppAnn 2.0, this can be done through the Grouping Entities tool. The next video file illustrates how to use this tool

![Tut8_Coding_Engagement.mp4](Tut8_Coding_Engagement.mp4)
You can find this file in the ‘Video Tutorials/Annotating’ folder in the attached CD-ROM.

V.3 VISUALIZING (VIDEO TUTORIALS)

V.3.1 UNDERSTANDING SYSTEMIC QUERY EXPRESSIONS

Systemic Query Expressions (SQEs) are the language of communication between you and AppAnn. When you decide to visualize discourse semantics, you need to tell AppAnn what systems and features you want to visualize, and this is achieved through SQEs. The following video file explains SQEs.

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.3.2 APPANN SIMPLE GRAPHS

Simple Graphs show frequencies of discourse semantic features or couplings in a text or corpus. Simple Graphs change automatically as you annotate a text or corpus to provide you with active probability profiles. To familiarize yourself with these simple visualizations, have a look at the following video tutorial:

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.3.3 APPANN DYNAMIC BARS

Tut10_Grouping_Entities.mp4

Tut11_AppAnn_SQEs.mp4

Tut12_SimpleGraphs.mp4
AppAnn Dynamic Bars is a 3D visualization technique that extends the traditional 2D bar graphs in various ways. The following video file provides a demonstration of this technique.

![Tut13_DynamicBars.mp4](Tut13_DynamicBars.mp4)

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

### V.3.4 APPANN SIMPLE ENTITY-SYSTEM RELATIONS

AppAnn Simple Entity-System Relations (ESR) is a visualization technique that extends the DocuCompare visualization discussed in Chapter 4 (Labrecque & Stasik, 2009). AppAnn ESR uses attitude features and ideational sources and targets, instead of lexical items. The following video tutorial provides a brief demonstration of this technique.

![Tut14_SimpleEntitySystemRelations.mp4](Tut14_SimpleEntitySystemRelations.mp4)

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

### V.3.5 APPANN STREAMGRAPHS

AppAnn StreamGraphs is a modified version of the stacked graph visualization proposed by Byron & Wattenberg (2008) and Havre, Hetzler & Nowell (1999; 2000). AppAnn StreamGraphs is concerned with discourse semantic features (rather than lexical items). The following video tutorial provides an illustration of how to configure and use this technique.

![Tut15_StreamGraphs.mp4](Tut15_StreamGraphs.mp4)

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.
V.3.6 APPANN PROSODIC RESONANCE DIAGRAMS (PRDS)

AppAnn Prosodic Resonance Diagram (PRD for short) is a technique that applied Correspondence Analysis to a text time-based contingency table. The purpose is to visualize associations between discourse semantic features (or couplings of features) and logogenetic moments (e.g. generic stage). The following video tutorial illustrates how PRDs can be used and interpreted.

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.3.7 APPANN CIRCLEVIEWS

AppAnn CircleViews is a modified visualization based on Keim, Schneidewind and Sips (2004). This visualization technique enables us to see how discourse features vary as text unfolds. The following video tutorial illustrates how to use AppAnn CircleViews.

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.3.8 APPANN FLARES

AppAnn Flares incorporates animation, motion trails, and various colour effects to visualize patterns of attitudes, and couplings of ATTITUDE and IDEATION as text unfolds. Flares are illustrated in the following video tutorial file.

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.
V.3.9 APPANN DISCOURSE ABSTRACT REPRESENTATIONS (DARS)

AppAnn Discourse Abstract Representation (DAR for short) uses shapes and colours to visualize attitudes, ideational entities, engagement and conjunction in text. The following video tutorial demonstrates DARs.

Tut19_DAR.mp4

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.3.10 APPANN CRA

AppAnn Correspondence Analysis is a useful visualization tool for exploring ‘hidden’ relations between discourse semantic features at various levels of instantiation. The following video tutorial illustrates how to use AppAnn CrA.

Tut20_CrA.mp4

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.3.11 EXPORT CODINGS TO TEXTUAL ANNOTATIONS

Codings and annotations done in AppAnn 2.0 can be exported easily to textual (printable) annotations such as those in Appendix IV. The following video tutorial explains how to do so.

Tut21_ExportAnnotations.mp4

You can find this file in the ‘Video Tutorials/Visualizing’ folder in the attached CD-ROM.

V.4 APPANN CRA ALGORITHM
As mentioned in Chapter 4 of this thesis, the Correspondence Analysis algorithm adopted in this thesis is based on Abdi & Williams (2010). The original algorithm provided in Abdi & Williams is written for MATLAB, and given as follows:

Variable/Matrix abbreviations:
% lambda is the eigenvalue vector,
% tau is the percentage of inertia vector
% fi is the matrix of the row-coordinates
% di is the vector of the (Chi-squared) distance to the centroid
% ri is the matrix of the Correlation between the i set and the axis
% ci is the matrix of the Contributions
% fj is the matrix of the column-coordinates
% dj is the vector of the (Chi-squared) distance to the centroid
% rj is the matrix of the Correlation between the j set and the axis
% cj is the matrix of the Contributions

%% Compute CA as a bilinear model
le_flip=0;
[I,J]=size(X);
if J<I; X=X';le_flip=1;[I,J]=size(X);end
if exist('nfk') ~=1;nfk=I;end
xtot=sum(sum(X'));
xpj=sum(X);
xip=sum(X,2);
c=sum(X)/xtot;
m=sum(X')/xtot;
w=ones(1,J) ./ c ;
Y= (X./(xip*ones(1,J))) -ones(I,1)*c;

%% use an eigenvalue decomposition to save memory
[P,l]=eigen(((Y.*repmat(w,I,1))*Y').*( (m.(1/2))'*(m.(1/2)) ) );
for nf=1:nfk;
    P=P(:,1:nf);l=l(1:nf);
end
P= repmat((m'.^(-1/2)),1,nf).*P;
px = P;
d=1.(1/2);
fi=P.*repmat(d',1,1);
t=(1/sum(all_l))'*100;
di=(Y.^2)'w';
ri=repmat((1./di),1,nf ).*( fi.^2);
cl=repmat(m',1,nf).*fi.^2./repmat(l',1,1);

%% Compute the solution for the J set using the transition formula
Z=(X./repmat(xpj,1,1) ');
fj=Z*P;
dj=( (Z-repmat(m,J,1)).^2)*ones(1,1)./m';
rj=repmat((1./dj),1,1,1).*fj.^2;
cj=repmat(c',1,1,1).*fj.^2./repmat(l',1,1,1);

% unflip
if le_flip==1;
    tm=fi;fi=fj;fj=tm;
    tm=ri;ri=rj;rj=tm;
    tm=ci;ci=cj;cj=tm;
end
APPENDIX VI  SURVEYS ON BIN LADEN KILLING

The controversy around the killing was reflected in a number of surveys conducted by GALLUP, the New York Times and the USA Today. In brief, the surveys show that i) a majority of people (≈93%) do in fact approve the killing operation, and around 60% prefer the killing over capture. The following sections provide screenshots of the surveys (as well as web links).

VI.1  THE GALLUP SURVEY

The GALLUP survey about the bin Laden killing operation can be accessed at


A partial screenshot of this survey is given in Figure VI.1.
VI.2 GALLUP INTERNATIONAL ASSOCIATION (GLOBAL SURVEY)

A global survey conducted by the Gallup International Association in 27 countries suggests that the global opinion is in favour of the killing. This survey can be accessed at

http://www.icpsr.umich.edu/icpsrweb/ICPSR/studies/33503

A partial screenshot is given in Figure VI.2 below. The survey results indicate that 48% are in support of the killing, 32% support capture instead, and 16% oppose the killing.
VI.3  THE USA TODAY SURVEY

The *USA Today* survey can be accessed at  
http://dailyinfographic.com/operation-kill-osama-infographic

The survey is given in Figure VI.3.
VI.4 THE NY TIMES SURVEY

The NY Times survey can be accessed at

http://www.nytimes.com/interactive/2011/05/03/us/20110503-osama-response.html?_r=0

A screenshot of this survey is given in Figure VI.4.

The survey is in fact interactive. It provides you with textual responses once you move the mouse pointer over a particular area of the visualization. For instance, a textual response from the significant + positive quadrant reads “He [bin Laden] needed to fall. Barbarians eat the meek”.

![NY Times' survey screenshot](image)

*Figure VI.4: NY Times’ survey suggests a majority that have positive response to the killing and that think it is a significant incident.*

APPENDIX VII BRIEF OVERVIEW OF APPANN DEVELOPMENT

I first developed AppAnn 1.0 (short for Appraisal Annotator) during my Master’s studies (at the Department of Linguistics at the University of Sydney) in 2009. My primary purpose of writing AppAnn 1.0 was to generate three kinds of visualizations for the ATTITUDE data included in my Master’s thesis. AppAnn 1.0 was intended to be a ‘private’ version as it was designed ad hoc to strictly serve the objectives of my Master’s research. The three AppAnn 1.0 visualization techniques are discussed in detail in my Text & Talk paper (Almutairi, 2013).
During that time, I gave a few presentations about AppAnn 1.0 and its potential use for appraisal analysis. Three particular questions was frequently asked by the interested audience:

i) can AppAnn further facilitate the tediously manual process of annotation by (at least partly) automating repetitive choices and annotations?

ii) can AppAnn be used to visualize other discourse semantics systems?

iii) is AppAnn available for public download and use?

As a consequence, I decided to completely rewrite AppAnn with these questions in mind. So when I began my PhD research in 2010, I started coding AppAnn 2.0 using the Delphi 2010 (Pascal) programming language and OpenGL (an API-based library for accelerated rendering of 3D graphics). The development of AppAnn 2.0 took me over two years of continuous coding, testing and debugging. In late 2012, it seemed to me that AppAnn 2.0 was ready to handle and visualize the annotated data upon which this thesis is based. Major changes from AppAnn 1.0 include the following:

- automatic extraction of basic discourse features including ideational entities in order to facilitate identifying sources and targets of attitudes
- automatic grouping of ideational entities in order to help generalize sources/targets across a subcorpus/corpus
- basic corpus tools such as n-gram statistics, word frequencies, keyword extraction and concordances
- better management of system networks
- more effective and sophisticated techniques for visualizing appraisal, conjunction and discourse staging.
- basic (coarse-grained) automatic extraction of attitudes using a set of word-sense disambiguation algorithms (with WordNet), a naïve Bayes classifier and a machine-learning algorithm based on artificial neural networks.

These changes reflect my ultimate desire to create a comprehensive and integrated system for (qualitative and quantitative) SFL-based discourse analysis. In other words, AppAnn 2.0 is intended to be a system providing a set of computational tools at various levels of instantiation focusing on the discourse semantics stratum.  

When my Text & Talk paper was published, I received a number of emails, mainly from China, requesting a copy of AppAnn 1.0. My initial reply was that AppAnn is an incomplete project that should be made available for download once completed. In early 2014, I decided to make AppAnn 2.0 available for download upon

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12 With a special focus on Martin’s discourse semantics,
request. Consequently, I received some invaluable feedback that encouraged me to start working on AppAnn 3.0 in early 2015 using the new Delphi XE8 studio\textsuperscript{13}. Initial versions of AppAnn 3.0 should be coming out in late 2016 with a great number of new features including:

- Windows, Linux and OS X versions
- Light versions for iOS and Android mobile phones (providing basic functionalities, mainly annotation, statistics and simple visualization)
- New dynamic visualization techniques
- More enhanced computational tools for automatic appraisal analysis
- Supporting multimodality (image, sound and video)
- Some computational tools for multimodal analysis (e.g. automatic image analysis and gesture/facial expression recognition)
- Full support for importing from/exporting to other SFL software
- Support for cloud-based storage and sharing
- Comprehensive tutorials and user manuals

Needless to say here that most of these features and upgrades demand further research and hopefully external funding.

\textsuperscript{13} The main advantage of Delphi XE8 over Delphi 2010 is to compile the same Pascal code for various operating systems,