# Space-Time and the Proposition

The 1944 Lectures on Samuel Alexander's Space, Time and Deity

by

# John Anderson

Edited and with an introduction by Mark Weblin



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#### **Editorial Prefaces**

John Passmore once wrote that to hear John Anderson's lectures of Samuel Alexander's *Space, Time and Deity* was to be taken to the heart of Anderson's own philosophy. These lectures provide the justification for that assertion. However, while recognising the significance of these lectures for understanding Anderson's philosophy, it is also important to note Jenny Anderson's comment that no two courses of Anderson's were ever the same and arguments often arose among his students as to which one was best.<sup>1</sup> His work, as she said, was never stereotyped. It is this observation that explains the relative delay in the publication of these lectures.

After the death of the Anderson's only child, Sandy, in 1996, the University of Sydney received a substantial bequest to establish an archives of material belonging to the Anderson family and to employ an editor to publish any material deemed to be of intellectual or philosophical importance. The Professor John Anderson and Family Archives were established in 1998 and the position of John Anderson Senior Research Fellow was advertised and filled in February 1999. The John Anderson Archives is 13 shelf metres in length of which his lectures occupy 1.5 metres. There are one hundred sets of Anderson's lectures on varying subjects, although only one third of these are in Anderson's own hand. Shortly after the establishment of the Anderson archives, the Scholarly Electronic Text and Image Service (SETIS) in Fisher Library had all of his handwritten manuscripts typed and placed on the John Anderson web site (http://setis.library.usyd.edu.au/oztexts/anderson.html). Anderson lectured twice on Space, Time and Deity, once in 1944 and again in 1949 and in the Anderson Archives there is one manuscript of the 1944 lectures in Anderson's own hand and several records of the 1949 lectures taken by students. Only the 1944 manuscript has been typed for inclusion on the John Anderson website

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<sup>&</sup>lt;sup>1</sup> Cullum, G. and Lycos, K. (Ed.) *Art and Reality* (Sydney: Hale and Ironmonger, 1982) p 3

The first John Anderson Research Fellow, George Molnar, from his appointment in February 1999 until his unexpected death in August of the same year, comprehensively edited Anderson's manuscript of the 1944 lectures, although no attempt was made to refer to or integrate any of the material from the 1949 lectures.<sup>1</sup> Since George's death, I have received several requests to complete his work and publish the 1944 lectures. However given the substantial differences between the two sets of lectures and the possibility that only one set of lectures on Alexander might ever be published. I did not believe that the high cost of commercial publication could warrant an edition of the 1944 lectures appearing which did not integrate material from the 1949 lectures. This difficulty has now been rectified by the enterprise shown by the University of Sydney Library in relaunching Sydney University Press as a print-on-demand publisher. Thanks to this innovation, it is now possible to publish these lectures with some confidence that the 1949 lectures can be published at a later date.

The editorial work performed by Mr Molnar was extensive and is explained in his own editorial preface. All of Mr. Molnar's editorial notes, diagrams and equations have been retained with some minor additions and alterations. It should be noted that Mr. Molnar reproduced the lectures *verbatim* and this leads to an occasional heaviness of style throughout the manuscript.

My own contributions to this volume over the last eight weeks have been the choice of a title, the creation of a table of contents and index, the inclusion of an occasional editorial note (designated by 'ENMW') and writing the introduction to the work. Regarding these contributions, the choice of title is intended to reflect the main theme of the course – that Alexander's 'neglect' of the proposition is the cause of his errors and confusions on Space-Time and the categories – and while the analytical table of contents is intended to assist the reader follow

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<sup>&</sup>lt;sup>1</sup> George Molnar's own philosophical work was edited by Stephen Mumford and published as *Powers: A Study in Metaphysics* (Oxford: Oxford University Press, 2003).

the main lines of the discussion, these descriptions were not used by Anderson himself and have been taken from the content of each lecture. Further the intention behind the introduction is to provide a brief account of the intellectual context of the 1944 lectures, the origin and structure of Alexander's Space, Time and Deity, Anderson's introduction to Space, Time and Deity and his subsequent research on it, and a general outline of the structure and argument of the lectures. However the introduction is not intended to provide a detailed examination of the arguments used in the lectures. There can be no substitute for thinking through these issues and the interested reader is referred to the table of contents and the index for further detail in the work. It should also be noted that the division of the lectures into groups such as Space-Time, the Logical Categories, the Mathematical Categories and the Physical Categories, do not correspond neatly to the lectures themselves although they do follow Anderson's own classification and grouping of the categories. This results in a certain 'fluidity' in the classification of the lectures in terms of these various groupings.

I would like to thank Paul Crittenden, James Packer, Creagh Cole, Ross Coleman, Tim Robinson, Julia Mant, Professor Richard Waterhouse, Dr. John Grumley and the staff of the Philosophy department for their assistance in the production of this work

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#### Preface

In 1944 Professor John Anderson gave a course of lectures on Alexander's *Space Time and Deity*<sup>1</sup> to a class of Fourth Year Honours students at the University of Sydney. The course comprised forty-six lectures delivered over three terms.

The lectures as originally given were based on notes, some of which are extant. Subsequently Anderson wrote up his lectures, with the help of notes taken by three students: A.J. Baker, P.C. Gibbons, and T.A. Rose. The complete manuscript, with marginal notes and corrections, takes up 145 pages of closely written text (approximately 73,000 words). An edited version of this manuscript is reproduced here.

The pagination of the manuscript text is indicated by square bracketed numbers in bold, inserted at the point where each page of the *ms* begins. So, for example, the material in the edited version that occurs *between* '[10]' and '[11]' reproduces *page 10* of the manuscript.

Anderson did not use footnotes in his manuscript. The edited version uses three kinds of footnotes, marked 'MN', 'NT', and 'EN', respectively. Their significance is as follows:

I. MN: these are marginal notes by Anderson. They are reproduced here verbatim, except that brackets enclosing the whole of a marginal note have been omitted. The footnote has been placed in the approximate position in the text to which the marginal note refers. All marginal notes are reproduced as footnotes, except for (a) those that were crossed out or obliterated, (b) those that deal with the order of presentation of the material in lectures, and (c) those that deal with the transcribing of the students' notes.

II. NT: these are Anderson's notes, and asides, and references, that occur *in the text*. They are invariably separated from the

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<sup>&</sup>lt;sup>1</sup> Samuel Alexander, Space Time And Deity, The Gifford Lectures At Glasgow 1916-18 2 vols. (London: Macmillan and Co. Limited, 1920).

rest of the sentence by bracketing which has *not* been reproduced. They are frequently introduced by "cf.". I have relegated this material to footnotes to improve the flow of the main text.

III. EN: these are editorial notes. All changes to the text are noted in editorial notes.

#### Punctuation.

Anderson used underlining for emphasis. This has been changed throughout to italics.

Bracketing: round and square brackets are used by Anderson, first, as punctuation, second, as a sort of guide in the spoken delivery of lectures. When brackets that occur in the manuscript are omitted from the edited version, the change is indicated in an EN.

References: in the edited version the titles of works cited in the text have been either italicised (books or classics such as Platonic dialogues), or placed in inverted commas (articles in periodicals or chapters in books). The titles of works in the NTs or MNs are italicised only if they are underlined in the manuscript, and the inverted commas in NTs and MNs are as in the original.

The illustrations are hand drawn in the manuscript, but have been redrawn for publication. "AJPP" throughout stands for *The Australasian Journal of Psychology and Philosophy.* 1

G. P. Molnar,
John Anderson Senior Research Fellow,
School of Philosophy, University of Sydney August 1999

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<sup>&</sup>lt;sup>1</sup> The editor is grateful for help and information provided by A.J. Baker, and P. Coleman.

#### Introduction

### The origin and context of the 1944 lectures.

The 1944 lectures on Alexander's Space, Time and Deity occupy an important place in John Anderson's corpus of lectures. From the time of his arrival at Sydney University in 1927 to 1937, the vear before his departure overseas on sabbatical leave. Anderson's lectures to students were concerned with Logic. Ethics, Greek Philosophy and Modern Philosophy. However Anderson's controversial public and political life during the thirties, coupled with the atheistic character of his philosophy, led to moves during the thirties to appoint a second professor, specialising in moral philosophy, who would be more sympathetic to theism and the appointment of A.K. Stout, son of the famous Idealist G.F. Stout, in 1938 was intended to stymie Anderson's growing influence. While this move failed, with Stout becoming a close friend and colleague of Anderson, this appointment did appear to give Anderson more time to develop his theoretical position in more detail and during the war years he lectured on a wide range of new subjects. Apart from returning to old favourites such as Plato and Logic, he now discussed in his lectures subjects as varied as Scientific Method, Ethics and Aesthetics, Political Philosophy, Socialism, and, in 1941, a set of lectures on 'Dialectic', where he traced the development of dialectic from the Eleatics through to Hegel. At the end of these lectures, Anderson briefly discussed the introduction to Space, Time and Deity but did not complete an extended examination of the book. This fuller examination first occurred in 1944 and then again in 1949.<sup>2</sup>

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<sup>&</sup>lt;sup>1</sup> See Department of Philosophy Archives, Sydney University Archives, Fisher Library, Sydney University.

<sup>&</sup>lt;sup>2</sup> Apart from these lectures, from 1939 Anderson had also begun to give discuss Alexander's philosophy in meetings to the Sydney Branch of the Australasian Association of Psychology and Philosophy (A.A.P.P.). However these addresses were outlines and sketches of the main features of Alexander's philosophy and did not discuss in detail the nature of Space-Time and the categories.

In examining the intellectual context of Anderson's life during these years, it is important to note that during the war, Anderson was engaged on some of his most important intellectual and philosophical work. His 'The Servile State', published in the Australasian Journal of Psychology and Philosophy (A.J.P.P.) in 1943, is still regarded as one of his finest articles and the 1945 'Prospects of Democracy' is an important statement of his theory of liberal democracy. He also wrote several important articles on ethics and social theory for the A.J.P.P. including 'The Meaning of Good', 'The Nature of Ethics' and 'Freudianism and Society'. During this period Anderson was also leading an active intellectual life on the university campus. In his addresses to the Sydney University Literary Society he discussed Joyce and Ibsen, while in his addresses to the Sydney University Freethought Society, he covered issues as varied as obscenity, mythology, Christian credulity, Freethought and totalitarianism and liberal education. Further Anderson's censure by the N.S.W. Parliament after his 'No Religion in Education' address in 1943 is an instructive example of how he could galvanise public opinion on the questions of education, religion and academic freedom.<sup>3</sup> Anderson was not merely sitting in his armchair pondering the esoteric question of the nature of Space-Time, but was actively engaged in the public controversies of his day.

# The development and structure of Alexander's **Space**, **Time** and **Deity**.

Samuel Alexander was born in Sydney in 1859 and moved at a young age to Melbourne where he gained his secondary

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<sup>&</sup>lt;sup>1</sup> See Anderson , J. Studies in Empirical Philosophy (Sydney: Angus and Robertson 1962) – hereafter Studies – pp 328 - 339 and Anderson, J. A Perilous and Fighting Life: From Communist to Conservative – The Political Writings of Professor John Anderson (Melbourne: Pluto Press 2003) pp 215 - 220.

 $<sup>^2</sup>$  See Anderson *Studies* pp 248 – 267, 268 – 278 and 340 - 358 respectively.

<sup>&</sup>lt;sup>3</sup> See Baker, A. J. Anderson's Social Philosophy: The Social Life and Political Thought of Professor John Anderson (Sydney: Angus and Robertson, 1979) pp 118–122, Kennedy, B. A Passion to Oppose (Melbourne: Melbourne University Press, 1995) p 159 and Franklin, J. Corrupting the Youth: A History of Philosophy in Australia (Sydney: Macleay Press, 2003) pp 17-22.

education at Wesley College. Alexander studied briefly at Melbourne University before travelling to England in 1877 where he won a scholarship to Oxford University. In 1887 he won the Green Prize in Moral Philosophy with his dissertation on ethics which became the basis of his Moral Order and Progress and in 1893 gained the position of Professor of Philosophy at Manchester University, becoming one of the leading Absolute Idealist's of the time.<sup>2</sup> Alexander's thinking remained comfortably within the confines of Absolute Idealism for the remainder of the century, until he was disturbed by the publication in 1903 of G. E. Moore's 'The Refutation of Idealism'. Alexander now began a critical re-examination of his attachment to Absolute Idealism and by the time he was invited to deliver the Gifford lectures at Glasgow University between 1917 and 1918, he had formed and developed the position which he subsequently published as Space, Time and Deity.<sup>4</sup>

In brief, *Space, Time and Deity* is an attempt to explain the nature and origin of the universe itself. The volume is divided into four separate books – Space-Time, The Categories, The Order and Problems of Empirical Existence and Deity – and is preceded by

<sup>&</sup>lt;sup>1</sup> Alexander, S. *Philosophical and Literary Pieces* (London: Macmillan and Co. 1939) p 1ff

<sup>&</sup>lt;sup>2</sup> Alexander, S. *Moral Order and Progress* (London: Trubner and Co.1889). D. G. Ritchie in his *Darwin and Hegel* (London: Swan Sonnenschein, 1893, pp 66-67) argued that Alexander's analysis of punishment in *Moral Order and Progress* was one of the best examples of the reconciliation of evolutionary theory and Absolute Idealism.

<sup>&</sup>lt;sup>3</sup> Alexander, S. *Space, Time and Deity* (London: Macmillan and Co. Limited, 1920) Vol. 1 p xxxi. Moore, G.E. 'The Refutation of Idealism' in *Philosophical Studies*, (London: Routledge & Kegan Paul Ltd, 1922), pp.1-30.

<sup>&</sup>lt;sup>4</sup> The key articles in Alexander's intellectual development after 1903 were: 'Ptolemic and Copernican Conceptions of The Place of Mind In the Universe' *Hibbert Journal* Vol. VIII, Oct. 1909.; 'The Method of Metaphysics; and the Categories' *Mind* Vol. XXI, 1912; 'The Basis of Realism' *Proceedings of the British Academy* Vol. VI 1914.

an Introduction which explains his philosophical orientation. In his Introduction, Alexander rejected the terms Idealism and Realism as adequate descriptions for his philosophy, preferring Empiricism as a better term for the enterprise he described as metaphysics, 'the empirical study of the non-empirical'. In this introduction. Alexander acknowledges his debt to Moore and the conclusion that he derived from Moore's refutation viz. that there is a distinction between the act of mind or consciousness and the thing of which it is conscious or aware. For Alexander, consciousness and object are "..together or compresent in the world". This compresence of mental activity and the object itself was in turn the basis for his epistemological distinction between contemplation and enjoyment - that the mind contemplates its objects but enjoys itself. While many philosophers in the Realist and phenomenological traditions in the early decades of the twentieth century discussed this distinction between mental activity and object, Alexander's unique contribution was to recognise that this relation of compresence between mind and object is not unique to mind, but is the most basic relation between any two objects existing in Space and Time. 4 Indeed it is this distinction between mind and body which gives Alexander the 'clue' to the relationship between Space and Time – that Time is in exactly the same

<sup>&</sup>lt;sup>1</sup> For general information on Alexander see Emmet, D. 'Foreword to the 1966 reprint edition' of Alexander, S. *Space, Time and Deity* (New York: Dover Press 1966); Metz, R. *A Hundred Years of British Philosophy* (London: Allen and Unwin, 1938) pp 622 - 655 and Passmore, J. *A Hundred Years of Philosophy* (Harmondsworth: Penguin 1966) pp 265 - 76. For more detailed accounts see Brettschnieder, B. *The Philosophy of Samuel Alexander* (New York: Humanities Press, 1964); McCarthy, J.W. *The Naturalism of Samuel Alexander* New York: Kings Crown Press, 1948); Weinstein, M.A. *Unity and Variety in the Philosophy of Samuel Alexander* Indiana: Purdue University Press, 1983).

<sup>&</sup>lt;sup>2</sup> Alexander *Space, Time and Deity* Vol 1 p 4. Care must be taken not to confuse Alexander's use of the word 'metaphysics' as the empirical study of the non-empirical with Anderson's rejection of 'metaphysics' as a rationalist construction of ideas. Although Anderson never used the word in Alexander's sense, his lectures on Alexander can be precisely defined as the empirical study of the non-empirical.

<sup>&</sup>lt;sup>3</sup> *ibid* Vol. 1 p 11

<sup>&</sup>lt;sup>4</sup> *ibid* Vol. 1 p 27. See also Vol. 2 p 75

relation to Space as mind is to the body. Time, he often said, is the mind of Space.

Alexander's examination of Space-Time was marked by a tension between a substantialist or materialist conception of Space-Time which is the origin of all things and a formal or logical view of Space-Time as the medium in which things exist. In his initial discussion of Space-Time, Alexander rejected physical, mental and mathematical conceptions of Space and Time, arguing for an empiricist or Absolute theory of Space-Time. However he subsequently detailed a substantialist and evolutionary theory of Space-Time as the 'simplest being itself', the "...stuff of which all things, whether as substances or under any category, are made".<sup>2</sup> The movement of Time occurs in Space and at some point reaches a degree of complexity where matter is created. With the creation of matter and the subsequent creation of qualities, the process of 'emergence' begins, producing objects of increasing qualitative complexity, from the inorganic to the organic, from organism to animal and from animal to human, the latter of which is the highest point vet attained, although not the end, of this evolutionary process. For Alexander, Deity, is still to come.

However this evolutionary conception of Space-Time is at odds with Alexander's logical or absolute view of Space-Time. While elucidating his 'stuff' theory of Space-Time, Alexander also argued that Space-Time is an 'infinite given whole' where any thing or event is a point-instant, a differentiated complex "..within the one all-containing and all-encompassing system of motion". This suggests that Alexander conceived of Space-Time as a medium in which things exist or are placed as point-instants and the logical or absolute nature of this view is well illustrated by his theory of the categories which he takes to be pervasive or universal features of things. Alexander identified seven distinct groupings of the categories - Identity, Diversity and Existence; Universal, Particular and Individual; Relation; Order; Substance, Causality and Reciprocity; Quantity and Intensity; Whole and

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<sup>&</sup>lt;sup>1</sup> *ibid* Vol. 1 p 180

<sup>&</sup>lt;sup>2</sup> *ibid* Vol. 1 p 341

<sup>&</sup>lt;sup>3</sup> *ibid* Vol. 1 p 183

Part, and Number – and while a detailed and critical exposition of these categories is a large part of the current work, it is important to note his statement that the categories have no origin. If Alexander appears to vacillate on the question of whether Space-Time is a 'stuff' or a medium, his belief that the categories have no origin clearly implies that Space-Time itself cannot have an origin and hence cannot be a 'stuff' from which all things emerge. The tension in Alexander between a substantialist or emergent conception of Space-Time and an Absolute and empirical one is clear and it is perhaps not surprising to learn that Anderson only focussed on those books dealing with Space-Time and the categories, regarding the later work as nugatory.

#### Genesis of Anderson's lectures on Alexander.

One young student at Alexander's 1917 Gifford lectures was John Anderson. Himself a brilliant and talented student at Glasgow University, Anderson was at that time writing his M.A. thesis, having versed himself in the pre-Socratic philosophy of John Burnet, the traditional syllogistic logic of Robert Latta, the realism of Moore, Russell and the American New Realists, the Idealism of Henry Jones and the 'radical empiricism' of William James. As he attended these lectures, Anderson gradually became convinced by the perspicuity of Alexander's system, although he was too independent-minded to be a mere disciple and while he worked at the universities of Glasgow and Edinburgh over the next ten years, he began the slow process of reformulating and thinking through Alexander's philosophy.

By the time of his arrival at Sydney University in 1927, Anderson had worked through many of his objections and difficulties and in a series of articles over the next five years, presented his criticisms of Alexander's system.<sup>2</sup> Accepting the primacy of the Realist logic of external relations, Anderson criticised Alexander for departing from Realism with his theory of compresence, the

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<sup>&</sup>lt;sup>1</sup> ibid Vol 1 p 330

 $<sup>^2</sup>$  See 'The Non Existence of Consciousness', 'The Knower and the Known' and 'Realism and some of its Critics' in *Studies* pp 60 – 67, 27 – 40 and 41 – 59 respectively.

corresponding error of mind as consciousness and its associated epistemological dualism, his theory of evolutionary levels of development, and his conception of Space-Time as a 'stuff'. Central to Anderson's criticisms of Alexander was his theory of the proposition. Anderson's understanding of the proposition was derived from his training in traditional logic and was a central feature of his philosophy. For Anderson the truth or falsity of a proposition is not determined by its context or its participation in the Absolute Idea, but by the simple fact of existence. Any proposition must express something and will do so in the subject-predicate form. Any proposition will contain a predicate attached to a subject by the copula – is or is not – and will have the logical form 'S is P'. Further, Anderson argued that any proposition will be either universal or particular<sup>3</sup> and hence concluded that there are only four logical forms of the proposition.<sup>4</sup> Although Anderson never published a full account of his logical theory of the proposition, his students knew it well through his lectures<sup>5</sup> and it formed the basis of his criticisms not only of Alexander, but of the pre-Socratics and modern philosophers such as Descartes, Hume and Hegel.<sup>6</sup>

After the last of these articles appeared in 1931, Anderson didn't publish or speak on Alexander or *Space, Time and Deity* again until 1939 and it was only in 1944 that he first lectured on Alexander's metaphysics in detail, a subject which he treated again in 1949. In both sets of lectures there is a common structure. Both begin with an Introduction which discusses the meaning of Realism and Empiricism and their relationship to Rationalism and Monism, in both there is a consideration of the

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 $<sup>^{1}</sup>$  See 'Propositions' and Judgements' and 'The Truth of Propositions' in *Studies* pp 15-19 and 20-26 respectively.

<sup>&</sup>lt;sup>2</sup> The 'is' in this sense being both affirmative and negative.

<sup>&</sup>lt;sup>3</sup> Anderson rejected singular propositions as a special class of propositions.

<sup>&</sup>lt;sup>4</sup> Universal affirmative (SaP), universal negative (SeP), particular affirmative (SiP) and particular negative (SoP). Anderson is clearly at odds here with the dominant tendency in twentieth century Anglo-Saxon logical theory which has emphasised a greater diversity of logical forms.

<sup>&</sup>lt;sup>5</sup> There are several copies of Anderson's lectures on Logic in the John Anderson archives.

 $<sup>^6</sup>$  See 'The *Cogito* of Descartes', 'Design' and 'The Place of Hegel in the History of Philosophy' in *Studies* pp 101-114, 88-100 and 79-87 respectively.

nature of Space and Time, including their interconnected nature as Space-Time, and finally in both there is a general theory of the categories and their classification into three separate groups: the logical categories, the mathematical categories and the physical categories. At this point however, the similarities diverge. In 1944 Anderson presented at least five different descriptions of the classification of the categories, whereas in 1949 there is only one such exposition. Significantly, the differences that occur in the description of the categories are differences of their relation to 'the proposition'. It is reasonable to conclude then, that the 1944 lectures were a 'work in progress' and that by 1949 he had come to a more definitive understanding of classification of the categories. This is not to say however that Anderson treated the categories equally, for while his discussion of categories such as causation and universality extends for several lectures, his discussion of categories such as substance or individuality don't even extend for an entire lecture. Another feature of these lectures which may puzzle many philosophically educated readers is Anderson's constant reference to the pre-Socratics, a reference that appears out of place in a discussion of Space-Time and the proposition. In fact, Alexander himself made frequent reference to John Burnet's work on early Greek philosophy and given Anderson's own appreciation of Burnet it is only natural that he would have continued and extended the use of him, especially with regard to Heraclitus.<sup>1</sup>

# The 1944 Lectures on Space, Time and Deity

# Introduction (Lectures 1-5)

Anderson begins these lectures with the statement that Realism will be assumed throughout the course, although he does not simply mean Realism in its narrow, epistemological sense, but also in its wider sense as a doctrine of independence or external

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<sup>&</sup>lt;sup>1</sup> For Anderson's fullest account of Heraclitus and the pre-Socratics see the 1928 Lectures on Greek Philosophy at the John Anderson web site.

relations. In this sense, he argues, Realism is indistinguishable from Empiricism understood as a theory of things in general. Anderson then considers Alexander's definition of metaphysics as the 'empirical study of the non empirical' in terms of the possibility of proof in logic<sup>2</sup> which brings him to one of the most fundamental problems of philosophy: how can we say a philosophical position is self-contradictory or self-refuting? 'Refutation by self-contradiction' is a method which is particularly evident in Moore's 'refutation of Idealism' and while it is not clear the extent of the intellectual debt Anderson owed to Moore's 'refutation', he did consider one important question raised in that refutation – what meaning is there to the notion of the self-contradictory? Overlooking the obvious tension in saying that a position is false because self-contradictory, Anderson argued that it is impossible to assert that a philosophical position is self-contradictory, for if the contradictory of the false is true, then the 'self-contradictory' precludes the very possibility of truth.<sup>3</sup> However for Anderson the more intelligible meaning to the conception of the 'selfcontradictory' is the 'self-refuting', for to say the something is self-refuting is to say that it is refuted or disproved by its incompatibility with the conditions of discourse. For example, to assert that 'There is no truth' is to make an assertion which is either true or false. If the statement is said to be false then there is no reason to believe it, while if it is said to be true then it refutes or is logically incompatible with the content of the statement itself

<sup>&</sup>lt;sup>1</sup> The epistemological meaning of Realism can be stated as the object of knowledge is independent of the subject of knowledge and the relation of knowing and has the logical form s/R/o. The ontological or logical meaning of Realism is that in any relationship a/R/b, 'a' and 'b' are independent from each other and the relation between them.

<sup>&</sup>lt;sup>2</sup> Anderson does not mean here logical proof in the formal sense of consistency. He is referring to proof in metaphysics or ontology and specifically the question of how we can speak about things without assuming our own position to begin with.

<sup>&</sup>lt;sup>3</sup> Anderson had previously discussed the nature of philosophical proof in 'Causality and Logic' in *Studies* p 123f and the problem of contradiction in 'Marxist Philosophy' in *Studies* p 306ff.

Anderson recognised as one of the major difficulties of any theory of the categories that terms like 'conditions of existence' must be used to define 'category', but that the term 'condition' must either be used in an unambiguous empirical sense in which case there is no 'thing' which is such a condition, or it must have a special, non-empirical sense in which case we cannot say what this special sense is. To avoid this difficulty, he suggests that the term 'category' might mean 'characters of existence' but even this presents its own problems. As a point of logic, any term in a proposition must have a significant opposite, but the categories have no significant opposite and therefore no category cannot be a term in the proposition.<sup>1</sup> Indeed the problems raised here generates for Anderson the fundamental problem of talking about the categories - 'how is logic possible?' How can we, in other words, speak of 'the proposition' as if it were a subject of discourse like 'man'? This brings Anderson to his most fundamental criticism of Alexander - his neglect of the 'proposition'. Anderson argued that Alexander's substantialist discussion of Space-Time as a 'stuff of which all things are made' could have been avoided if he had begun with a consideration of the proposition. For Anderson, the form of the proposition exhibits the spatio-temporal character of things, with the subject function indicating location, the predicate function indicating activity and the copula indicating occurrence or nonoccurrence 2

# Space-Time (Lectures 6 – 13)

Having established the basis of his philosophical and logical position, Anderson discusses Alexander's conception of Space-Time and begins by criticising the conception of materialism or substantialism. Physical Space-Time, he argues, postulates "..a primitive or original form of Space where all is connection and

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<sup>&</sup>lt;sup>1</sup> This is the problem of 'the unspeakability of the categories'. See Baker, A.J. *Australian Realism* (Cambridge: Cambridge University Press, 1986) pp 106 - 107

<sup>&</sup>lt;sup>2</sup> In a slightly different formulation he asserted: "Predicates give structure to subject and subject gives continuity to predicates, as Time gives structure to Space (breaks up its mere bulk) and Space gives continuity to Time)." Lecture 7

there is no distinction, and a primitive form of Time where all is distinction and there is no connection."<sup>1</sup> Any theory which proposes such a primitive Time and Space must explain how things with qualities could ever arise from pure Space-Time and while Alexander's contribution to this debate is largely in support of absolute Space-Time, he slips into confusion by trying to reconcile Newtonian Absolutism with Einstein's Relativity theory, resulting in a substantialist conception of Space-Time. Anderson argued that Alexander's approach is quite 'unpropositional' and it is only by treating things as both spatiotemporal and propositional, that his confusions could be resolved. "The propositional treatment of things is a treatment of them as connected and distinct, subject and predicate having to be together in the proposition and yet having to be distinguished from one another if any intelligible assertion is to be made, while the spatio-temporal theory of things is the theory of the togetherness and distinctness which can be found between any two processes and indeed within any single process."<sup>2</sup> Alexander's substantialist theory of Space-time must therefore be rejected and replaced with the view that Space-Time is a medium in which things occur. But Anderson recognises that even this conception has its problems for if Space and Time constitute a medium in which things exist, how can we even say this without implying that this medium itself occurs. Anderson then begins an extended discussion of the inter-relatedness of Space and Time, and in particular of the essential connection between the three dimensions of Space and the three characters of Time: successiveness, transitiveness and irreversibility in Time and one, two and three dimensions in Space. Having established these connections. Anderson turns to the problem of a situational logic. the logic of situations occurring in Space-Time. He argued that it is not merely that a situational logic is a spatio-temporal logic, but that a situational logic shows that we must understand Space and Time not as a kind of total receptacle in which situations occur, but rather as that which is involved in any situation at all. It is clear, he says, that nothing *less* can be understood by Space and Time than infinite divisibility and infinite extensibility.

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<sup>&</sup>lt;sup>1</sup> Lecture 7

<sup>&</sup>lt;sup>2</sup> Lecture 7

# Transition to the Categories (Lectures 16 – 17)

In moving to his discussion of the categories, Anderson criticises Alexander for conceiving of Space-Time as an 'infinite given whole' and argues that this difficulty arises because of Alexander's failure to treat infinite Space-Time in terms of the proposition. This raises the issue of the distinction between the subject and predicate of the proposition and even though he concedes that the subject-predicate formulation leads to certain difficulties or 'paradoxes', he concludes that it is only by this formulation that the confusions Alexander falls into can be resolved. In particular, Anderson argued that if the categories indicate what is involved in being, existence or occurrence, then they also indicate what is involved in being propositional. Hence Alexander's attempt to treat the categories as only being expressed as predicates, leads him to a substantialist view of Space-Time and the only way to resolve this difficulty is to recognise that they must also occur in the subject of the proposition. However the treatment of the categories as subjects raises the problem that categories have no obverse – that if we say that a category is X, we cannot say that it is not X – and Anderson suggests that the way around this difficulty is to treat the categories as forms of relation. This would mean that as relations, the categories could still be regarded as all-pervasive and yet have real issues raised about them. Having outlined the general nature of his spatio-temporal and propositional theory, Anderson now goes on to discuss the three groups of categories: the logical categories, the mathematical categories and the physical categories.

<sup>&</sup>lt;sup>1</sup> "What I am suggesting is that to say that things exist in Space and Time is to say that they exist in the propositional form." Lecture 16

<sup>&</sup>lt;sup>2</sup> For example, "...we recognise things by the places where they are located and at the same time recognise locations (places) by the things that are in and around them --- or, sticking to the subject-predicate question, that we recognise subjects by the predicates they have and predicates by the subjects they belong to". Lecture 16

## a) The Logical Categories (Lectures 18 – 28)

Anderson considers firstly what he describes as the five categories of the proposition – Identity, Diversity, Existence, Relation and Universality – and articulates his general position as being that "..the distinction of the forms of the proposition is the best way of drawing attention to characters of the proposition as such, i.e., to what should be dealt with in a theory of the categories or in a theory of Space-Time." In considering the category of identity, Anderson accepts Alexander's view that identity is the occupation of Space-Time and he identifies this with his own doctrine of location as the function of the subject of the proposition, concluding that identity can be described as 'being the subject of a proposition'. However while it might be natural to conclude that difference is 'being the predicate', Anderson argued that difference is 'embodied' by identity and hence is also located in the subject location. The real distinction from the subject of the proposition is not the predicate, but the copula of existence. Anderson's discussion of the category of existence is brief, for he had already discussed the general features of the spatio-temporal nature of existence in some detail earlier, although in keeping with his identification of a spatiotemporal logic with a propositional logic, he did emphasise the identification of actual existence with the truth of the proposition. However the question of the completion of the proposition is not now simply resolved by adding the predicate, for the subject and copula must be in a relation to the predicate and Anderson now enters into an extended discussion on the nature of relation. Like existence, relation is a fundamental category which, apart from his discussion of relational arguments, he does not consider in detail. The key question for Anderson is whether predication is a relation or not and his rather ambiguous answer is that it is not a relation, although it *involves* relation.<sup>3</sup> Finally Anderson considers the category of universality which he understands as 'kind' or 'type' and is indicated by the predicate of the proposition. Universality occupies an important place in

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<sup>&</sup>lt;sup>1</sup> Lecture 19

<sup>&</sup>lt;sup>2</sup> Lecture 19

<sup>3</sup> Lecture 22

Anderson's ordering of the categories, for he argued that while it can be understood in its logical sense, it can also be understood in a mathematical sense – as the 'all' in the universal proposition – and hence serve as a transitional category to the mathematical categories.

## b) The Mathematical Categories (Lectures 29 – 36)

Having established the five categories of the proposition, Anderson turns next to a consideration of the mathematical categories: Universality, Particularity, Number, Order and Ouantity. As already indicated, universality in its mathematical sense is indicated by the universal quantifier and this is contrasted with particularity or the particular quantifier – the 'some' of the particular proposition. Like many philosophers since Plato, Anderson insists that a universal is not a thing, although surprisingly he also asserts that a particular is not a thing either, even though he admits to having spoken that way in the past.<sup>1</sup> This discussion of universality and particularity as mathematical categories raises the question of the category of number and it was a distinctive feature of Anderson's view of mathematics that he believed it to be an empirical science and not a 'rational' science based on axioms. A logical theory of number, he concluded, can only be a theory of empirically observable whole numbers. From this theory of number, Anderson develops his theory of ordinal numbers into a general theory of the category of order. Anderson's discussion of order is again very brief and he moves on to a discussion of the category of quantity. He argues that from the mathematical point of view, quantity is the same as real number which exhibits a continuity not found in rational number. Anderson's discussion of the category of quantity is again brief although he emphasises that like the category of universality, it has two senses – as a mathematical category and a physical category.

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<sup>&</sup>lt;sup>1</sup> Lecture 26

# c) The Physical Categories (Lectures 37 – 46)

Anderson now moves on to a discussion of the physical categories: Quantity, Intensity, Substance, Causality and Individuality. From the physical point of view he argues that quantity can be regarded as solidity or 'space-filling', although he rejects any materialism which claims that 'matter' is anything more than simple space-filling. He then discusses the category of intensity or degree and argues that in distinction to the category of order where there is no reference to quality, in intensity there is a correlation with quality, as in the difference of pitch. He next considers the category of substance which he characterises in terms of constitution or composition and argues that this is analogous to the conception of harmony which is found in Heraclitus This leads Anderson on to an extended discussion of the category of causation and he criticises Alexander for not distinguishing properly between causality and change and for neglecting the conception of a causal field. Anderson concludes with the category of individuality or 'thinghood' which he characterises as concrete identity which brings him to a contrast with the abstract identity he had begun with.

# The Classification of the Categories

This completes the discussion of the categories, although what has been passed over in this discussion is the recurring discussion of the classification of the categories which occupies a large part of the latter part of the lectures. In his first 'preliminary and tentative' grouping of the categories in lectures 32-3, Anderson groups the categories in terms of Quality, Quantity and Physics but does not discuss their nature in any detail. In lecture 37 he describes the categories of quality as categories of pure logic or the proposition, the categories of quantity as mathematical categories which are concerned with the subject of the proposition, while the physical categories emphasise the logic of process. Three lectures later, he makes a

<sup>&</sup>lt;sup>1</sup> For Anderson 's own discussion of the causal field see 'The Problem of Causality' in *Studies* p 129ff

further specification of the categories. The categories of quality are related to the four forms of the proposition, the categories of quantity indicate the region within which something goes on, while the physical categories are the categories of action or process. In his next lecture, he slightly modifies this description and describes the categories of quantity as extensional categories, while the physical categories are the intensional categories. In lecture 43 he varies his language yet again and now describes the first set of categories as propositional, situational or logical categories or what is common to Space and Time, the second set of categories are the categories of extension or quantity or what occupies Space and Time while the third set are the categories of intension or quality. In the next lecture he provides another description of the categories. In the first group there are "..ways in we give an account of things as in Space and Time, as located or in situations (Situational or Propositional Categories)", while in the second group there are ".. ways in which we give an account of things as spatio-temporal, as having spatio-temporal characters or even, if you like, as spaces and times" and in the third group there are "..ways in which we give an account of things as distinct from Space and Time - in other words, as qualitative". As argued previously, these various formulations of the grouping of the categories suggests that Anderson was working through his ideas during 1944, a tentativeness which he had resolved by 1949.1

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<sup>&</sup>lt;sup>1</sup> In contrast to these varying classifications, in his 1949 lectures Anderson gives just one grouping of the categories. He argued that "the categories of first group are necessary for or are ways in which we can give an account of things as in Space and Time or as in situations, the categories of the second group are ways in which we can give an account of things as spatio-temporal or even as spaces and times... and the categories of the third group are ways in which we give an account of things as distinct from Space and Time as qualitative..." (Personal typed copy of the 1949 lectures on Alexander p 76, his emphasis. This copy was obtained from Dr. Brian Birchall, formerly of the University of New England, who attributed them to Mr. Bill Doniela. Mr. Doniela has in turn attributed them to Professor David Armstrong who believes they are notes taken by Mr. Eric Dowling.)

#### Conclusion

In summary, Anderson argued that spatio-temporal occurrences or situations can only be understood in propositional terms: something must be asserted and something must be denied and this implies a subject-copula-predicate structure. From this structure, Anderson deduced five categories of the proposition. Identity and difference are to be found in the subject location, spatio-temporal existence is indicated by the copula of the proposition, and relation and universality are to be found in the predicate. This last category gives us the transition to the five mathematical categories which are the categories of the subject of the proposition. These are not related directly to the proposition and are categories of location and extension. Universality is a transitional category and is contrasted with particularity, both of which taken together raise the category of number. With the consideration of number we have questions of order being raised and finally there is a general examination of quantity. This category provides the transition to the five physical categories or categories of process and the physical meaning of quantity as space-filling leads to the category of intensity or degree. From intensity, the question of substance or structure is raised which leads to an examination of the category of causation. After causation, he concludes with the category of individuality.

What conclusions then, can be drawn from Anderson's critical examination of Alexander's *Space, Time and Deity*? Firstly, from his criticisms of Alexander's 'stuff' theory of Space-Time, it can be seen that any physicalist or substantialist theory of Space-Time must be rejected in favour of a theory of Space-Time as a medium in which things exist. Since the basis of this criticism was Alexander's 'neglect of the proposition', then it follows that Anderson's derivation of the categories from the forms of the proposition is fundamentally correct. However it can be recognised that there is a lack of detailed analysis of some of the categories under consideration and his classification and description of the categories varies markedly throughout the lectures. The second of these difficulties is resolved by 1949 as the first issue may also be, although if not, that task belongs to a

fuller critical analysis and development of these lectures. It can also be noted that the transitional categories of universality and quantity (and perhaps identity) have a double meaning depending upon which category heading they appear under. This means that we cannot ask 'What is universality?' without resorting to the question 'What context does it occur in?'. This conclusion would appear to contradict Anderson's rejection of the context of the proposition as significant in the determination of the truth or falsity of a proposition.

Secondly, and independently of the first point, Anderson must provide some theoretical account of categorial discourse. Even if we accept Anderson's explanation that the absence of the obverse of the categories implies that they must be relations, they must still be explicated in terms of the forms of the proposition and hence cannot be part of the content of the proposition. Anderson recognised this difficulty but provided no solution to it in these lectures. The first step in formulating this solution is to postulate another type of proposition where categories can be terms but are not existing things. However if Anderson takes this step, then we must then wonder how these categorical propositions which have no obverse are to be distinguished from the propositions in Hegel's method of dialectic which Anderson took so much time to refute. Also Anderson might have to face the question of how we can be said to know the categories? Is it, as in phenomenology, a question of 'intuition' or is it, as seems more likely, that the categories cannot be 'experienced' at all and our beliefs about them are conclusions drawn from the rejection of certain 'self-refuting' propositions? While this latter view would appear to be the one most obviously drawn from Anderson's logical writings, it is worthwhile noting that in his 1942 Lectures on Ethics and Aesthetics he appears to advocate the view that science and art are two different ways of appreciating or understanding the structure of a thing. If so, then it may be that the artistic appreciation of the categories is indeed a matter of 'intuition'

John Anderson thought Alexander's *Space, Time and Deity* a 'mighty fragment' and he is the only critic of Alexander who

has attempted a logical reconstruction of his metaphysics from an empiricist basis. Anderson's arguments in the 1944 lectures on Alexander are logical, acute and on the whole thorough-going, although ultimately, in terms of their philosophic enterprise, they remain unfinished. His criticisms raise questions to which he sketches solutions, but which in turn raise their own questions, some of which he recognised and some of which he didn't. This is, of course, no more than the working of the philosophic tradition itself and perhaps no better judgement of this work could be made than to say it is, like Alexander's work, a 'mighty fragment' in the tradition of philosophy, but a fragment nonetheless.