COPYRIGHT AND USE OF THIS THESIS

This thesis must be used in accordance with the provisions of the Copyright Act 1968.

Reproduction of material protected by copyright may be an infringement of copyright and copyright owners may be entitled to take legal action against persons who infringe their copyright.

Section 51 (2) of the Copyright Act permits an authorized officer of a university library or archives to provide a copy (by communication or otherwise) of an unpublished thesis kept in the library or archives, to a person who satisfies the authorized officer that he or she requires the reproduction for the purposes of research or study.

The Copyright Act grants the creator of a work a number of moral rights, specifically the right of attribution, the right against false attribution and the right of integrity.

You may infringe the author’s moral rights if you:
- fail to acknowledge the author of this thesis if you quote sections from the work
- attribute this thesis to another author
- subject this thesis to derogatory treatment which may prejudice the author’s reputation

For further information contact the University’s Copyright Service.

sydney.edu.au/copyright
Rear Window:
Reconsidering the Clinic from the Perspective of the
Patient Gown

Sahar Tavakoli

Thesis submitted in fulfilment of the requirements for the Degree of Master of Science in History and Philosophy of Science.
The University of Sydney
January 2016
Abstract

Using the example of the patient-worn hospital gown, this thesis explores the role of mundane artefacts in the social structuring of clinical settings. Data used in the article was collected over the period March 2013 to December 2014 from interviews held with physicians, nurses, patients, linen services, and general clinical staff working in, or admitted in, the public hospital network of New South Wales, Australia. The argument put forward in the thesis is that often-overlooked artefacts, such as the patient gown, play an instrumental role in the arrangement of various actors within the clinic; prepping varied, individual bodies for the receipt of a standardised model of health care.
Introduction

In Act one, scene three of Hamlet, Polonius provides his son Laertes with the advice that “the apparel oft proclaims the man”.¹ Some three hundred and eighty years after the dispensing of this advice, hip hop artists RUN-D.M.C explain that the formidability of their rhymes and stage presence can be traced back to their choice of footwear.²

The patient-worn, back tying hospital gown, common across all public hospitals, makes a more troublesome form of proclamation. That the clothes make the man is well and good. That a backless dress should make a patient calls for further attention. What differentiates the creation of patient identities from those of Shakespeare and RUN-D.M.C is that while the latter describes individuals who select their own clothing, patients have their clothing selected for them by discrete actors in the clinic. Further, the patients who wear such garments have been frequently noted to describe hospital garments as humiliating and demeaning. Asking who selects such clothing and to what end becomes important here.

Clinical settings are frequently viewed as sites of innovative and sophisticated technologies.³ Cardiac monitors, computed tomography scanners, and ultrasounds, amongst numerous other innovative technologies, all contribute to the environment of the clinic. Not only is the image of the clinic tied to technology, it has also been argued that patient satisfaction is linked to the competent employment of technologies by medical staff as an expression of their expertise and qualification.⁴ Nonetheless, a view that emphasises high technologies is somewhat at

odds with the near ubiquitous use and presence of more mundane forms of technology in the clinic, such as beds, wheelchairs, uniforms, bandages, charts, clipboards, thermometers, clocks, plessors, stethoscopes, sponges, and so on, without which the standard practices of the clinic would be brought into disarray.

Further, if we are to rely on historian of science David Nye’s broader definition of technology, which includes “the totality of tools, machines, systems and processes used in the practical arts and engineering,” then clinics become not only sites of mundane artefactual technologies but also of mundane practices. In addition to this, historian of technology, David Edgerton has observed that older technologies do not cease to exist at the introduction of newer technologies; rather, technologies of varying levels of innovation are used alongside one another, often for long periods of time. Older, less specific modes of diagnostic testing occur more frequently within clinical settings than newer, more sophisticated, highly specific forms of testing: a urine sample is, still, fairly normal for a patient receiving medical treatment, a polymerase chain reaction is not. Mundane technologies, as both artefacts and practices, are often required for the operation of more sophisticated technologies: a patient cannot undergo a magnetic resonance imaging scan without first being placed on a bed. As such, mundane technologies not only play an essential role in the functioning of the clinic, but also in the operation of the high-tech technologies of that clinic. Hospitals, then, are not only

5 A reminder from studies of the history of science summarizes the problem inherent in terming various technologies “mundane”. The manufacture and use of clocks had significant social impact upon 17th century Europe. Clocks altered societal organization, the social standing of artisans, navigation, astronomical studies, philosophy, and the basic experience of passing time. Mundane technologies are by no means less important, unique, or essential than their opposites, they are simply more commonplace, or, to propose an alternative means of considering such technologies, more essential to the processes of life as we know them. Landes, David S, *Revolution in Time: Clocks and the Making of the Modern World* (Cambridge: The Belknap Press of Harvard University Press, 1983).
8 The image of the 17th century physician holding up the urine filled matula may not be that archaic after all.
sites of technological innovation, but also of technological obduracy.\(^9\) The importance of mundane technologies, however, extends far beyond the clinic into the fabric of everyday life. Indeed, scholars in the history of technology and Science and Technology Studies have indicated that much promising work remains to be done in the study of materiality and mundane technologies.\(^10\)

In this thesis I investigate a single mundane technology and its function within the public health network of New South Wales (hereafter, NSW). The technology in question is the patient-worn, back-tying hospital gown – an artefact rendered near invisible by its ubiquity and an artefact that has experienced little, if any redesign in the last century. Following a single, mundane artefact within the clinic allows for a unique approach to evaluating both patient-based and physician-based analyses of healthcare structures. Focusing on the patient gown as a mediating device between patients and physicians (or, for that matter, nurses and other professional staff within the clinic) shifts attention to the materiality, rather than the more often discussed discursive characteristics of medical encounters.

Current studies of the hospital gown approach the question of the gown’s function without directly addressing what such a function may be.\(^11\) These studies address the effect of the gown on patient dignity and emphasise that the gown, in its current form, is an unavoidable component of the clinic. Nonetheless, such accounts fail to provide an explanation of what the gown does within the clinical setting to make it such an inevitability, nor do these accounts address alternative gown designs. The role and function of the patient gown has consequently

---


been misrepresented. Rather than viewing the gown as a tool employed by patients to their own ends, I put forward the claim that, within the clinical setting, the gown is a tool employed in the manufacturing of a particular kind of identity by shaping individuals into standardised patients ready to receive a standardised model of health intervention.

By focusing on mundane technologies, rather than advanced technologies within the clinic, I make the argument that mundane technologies play an instrumental and unique role in assigning behavioural repertoires to individuals within social hierarchies and authoritative structures in the clinic. Specifically, I argue that mundane technologies can be and are utilised in the construction of a particular kind of patient primed for a particular kind of engagement. I will focus on the hospital gown, which provides a unique perspective on social, and, more so, to clinical hierarchies within hospital settings by drawing parallels between the experience of donning patient uniforms and everyday actions. Clothing and dressing is an action of everyday life. In the subversion of this process within the hospital, we find significant challenges to everyday behaviours and individual identities. In making such an argument, I also draw attention to the methods currently used to describe and evaluate mundane technologies, user categories, and the development of social disciplinary structures, and attempt to draw new meaning from the consolidation of these approaches.

Clinical apparel has not been entirely neglected in the history, sociology and anthropology of medicine. However, these studies have predominantly focused on the clothing worn by medical staff and the role this plays in the establishment of professional identities and clinical hierarchies. The small amount of research that has studied the patient gown either considers

---

the gown only as it is portrayed in contemporary artistic images\textsuperscript{13} or focuses only on the perspective of the patient and patient dignity.\textsuperscript{14} This thesis contributes to this budding field of research by combining approaches from both Science and Technology Studies and History and Philosophy of Science (hereafter STS and HPS respectively) and draws attention to the methods currently used to describe and evaluate mundane technologies, user categories, and the development of social disciplinary structures. Nonetheless, much work yet remains to be done, in particular on the emergence of the hospital gown during the period of medical professionalization in the 19\textsuperscript{th} and early 20\textsuperscript{th} century.

Furthermore, this thesis engages with a number of topics in the field of STS specifically. An obvious starting point is the idea that social processes of representation, enactment, identity formation, and performance are embedded in the material structure of daily life. More specifically, this thesis adds to discussions on the properties of material objects by arguing that everyday objects such as clothing can be considered technological objects and that such mundane technological objects play an important role in the creation of a variety of social identities. Looking at technologies such as the hospital gown also allows for reflection on the ways in which technologies become embedded in our daily infrastructure and, as a result, are rendered invisible. Making mundane technologies more visible highlights the processes by which these artefacts obtain their obduracy. In other words, studying everyday technologies leads to a better understanding of how institutional and social powers are frozen in technological systems. Acknowledging how such powers are configured even at the most mundane level presents a starting point for eliciting social change.

Invisible technologies also present opportunities to study how socio-technical relations are manifested in physical objects and institutional infrastructures. The disciplining effects of (medical) technologies and the manner in which engineers attempt to configure users through

technological scripts have been poignantly analysed in previous studies.\textsuperscript{15} This current study of the hospital gown emphasises that mundane technologies can be studied using a similar approach and that the social impact of these technologies are not to be underestimated.

Finally, I argue that the gown has been misrepresented in relation to users and user categories. Existing studies of the gown have focused on patients as lead users of the gown, and, to a lesser extent, nurses as gown users.\textsuperscript{16} Conspicuously absent here are medical staff – that is physicians, nurses, and other professional staff within the clinic – who, in the staging of hospitals, play an integral role in the construction of the patient, if not through assigning individuals to the patient role, then by acting as the foil to the patient role.

In this thesis, I prioritise physician and nurse perspectives over the more often emphasised patient perspective in order to better understand the role of these professional staff, particularly at the site of role ascription and interactions. Placing greater emphasis on physician and nursing perspectives than those of patients is done for two reasons. First, existing literature and interview data from nursing and industrial design studies of patients has made patient discomfort the prime object of observation.\textsuperscript{17} In light of this, and in

\begin{thebibliography}{99}
\bibitem{17} Mesman, J. \textit{Uncertainty in Medical Innovation: Experience Pioneers in Neonatal Care}. (London: Palgrave MacMillan, 2008).
\bibitem{20} Matiti and Trorey, “Patients’ Expectations”.
\bibitem{24} Matiti and Trorey, “Patients’ Expectations”.
\end{thebibliography}
consideration of the breadth of existing patient interviews, it seems unnecessary to place patients in a position of further observation and interrogation. Second, in focusing on medical staff, I respond to existing literature from these fields on the subject of the patient gown. These have focused primarily on the perspective of patients. Such literature has also aligned nurse interests with patient interests. Investigating the gown from the position of medical staff rather than patients allows for a new understanding of the patient gown, while a reconsideration of nurses as their own active agents emphasises the unique position of nurses in the clinic and dispels an image of the clinic that focuses on only patients or physicians.

This is not to say that patients have been overlooked in this analysis. Patient accounts are presented here as a complement to staff perspectives. Taking such an approach allows for a new consideration of the function and design of the patient gown. Certainly, patients play significant roles in relation to the use of the hospital gown, but, in looking at physicians and nurses, and by gathering empirical data from such individuals, the character of the gown is transformed. From this perspective, the gown ceases to be a tool of care. Rather, the gown becomes akin to the song of the Pied Piper, coercing others into actions and behaviours over which they offer seemingly little resistance. A better understanding of such actions and the role everyday objects play in these processes will contribute to opening up a discussion in which clinical dressing might be more aligned with patients’ interests. If the improvement of healthcare is to be taken seriously, mundane technologies such as the hospital gown cannot be ignored.

To build the argument that hospital gowns and other mundane technologies play significant roles in the operation of clinical organisations, I take the following approach:

Chapter one will provide an overview and analysis of relevant literature from the fields of history and philosophy of science, science and technology studies, literary studies, and

Walsh and Kowanko, “Perceptions of Dignity”.
nursing. The breadth of disciplines included in this literature should not be considered an attempt at contrived eclecticism, but instead a consequence of the heavily embedded nature of mundane technologies in everyday life. To complement this, a brief overview will be given of what constitutes a mundane artefact and what distinguishes such technologies from their more sophisticated counterparts. Moreover, while STS and HPS may be the more traditional disciplines to adopt in an evaluation of this kind, neither discipline has provided an adequate account for the obduracy of the artefact at hand, nor its character as described by those who engage with the technology. Rather than looking further inwards within these disciplines, an investigation of the hospital gown will adopt external disciplines and their methodologies, borrowing from literary studies and nursing studies to complete the account and to complement what STS and HPS have each previously shown. The extended length of this literature review is a consequence of this branching out from HPS and STS. The concepts raised within chapter one will be reintroduced in chapters two and three in order to build a new understanding of the role played by the patient gown in medical engagements and our existing definitions of users, in particular, users of the patient gown.

Chapter two outlines the methods employed in the collection of empirical data as well as an overview of participant groups. Two broad themes are drawn out of this pool of data and presented alongside approaches introduced in the review of literature. The first of these highlights the absence of patient interests in descriptions of patient gown function provided by medical staff. This theme is introduced in concert with notions of discipline introduced in the review of literature. The second theme drawn from the collected data emphasises a contrast between formal training on the appropriate use of the patient gown, and the practice of employing gowns within the clinic. This is presented alongside a return to the concerns of nursing studies and a study of mundane artefacts. Both physicians and nurses describe the patient gown as an institutional norm, and the proper use of the gown as common knowledge. The invisibility of the patient gown is combined with literature on invisible work, and particularly, the invisible work of nurses, within the clinic in order to reflect and expand upon
both mundane material objects and practices.

Chapter three provides an overview of the patient gown from the perspective of industrial design, incorporating the empirical data introduced in the previous chapter. The role of industrial design in the development of patient gowns is investigated here, in part, by analysing patient gown patents. Industrial design and patent data demonstrate that patient gowns, unlike the criticism of the gown put forward by the field of nursing, do exist in multiple forms. The persistence of the currently used patient gown over any alternative design invites a reconsideration of user categories, and demonstrates a place for further development in our current approaches to users.

Chapter four will conclude the thesis. Having established a relationship between mundane technologies, individual identities, and performative approaches, there are still several avenues for further research. These are addressed and elaborated upon within the concluding chapter.
Chapter One
A Review of the Current Literature

In a lesson on pattern recognition made famous by Sesame Street, we have been asked the following:

One of these things is not like the others,
One of these things just doesn’t belong,
Can you tell me which thing is not like the others,
By the time I finish my song?18

Following this call to action, we are presented with multiple items, asked to inspect each, and then judge them vigorously; investigating their surfaces for potential dissimilarities and alerting the world to single out the intruding body.

This thesis adopts a somewhat gentler stance. Instead of highlighting differences, what is encouraged is the recognition of similarities. In asking how the following cases link to each other, attention is drawn to the ways in which technologies are adopted and reconfigured, as well as to how we ascribe the title of user. The question then becomes: can you tell me how these things are much like each other by the time I finish my song?

I will therefore ask the reader to compare the following items.

Item 1: Erving Goffman’s functions of role distance in surgery and the behaviour of junior medical staff.

18 “Sesame Street: One of These Things,” YouTube video, 0:29, Posted by: Sesame Street, July 16, 2010, http://www.youtube.com/watch?v=060lKFEJg&feature=youtube_gdata_player
In *The Operating Room: A Study in Role Distance*, Erving Goffman states:

We cannot say, however, that role distance protects the individual’s ego, self esteem, personality, or integrity from the implications of the situation without introducing constructs which have no place in a strictly sustained role perspective. When the individual withdraws from a situated self he does not draw into some psychological world that he creates himself but rather acts in the name of some other socially created identity (...) in short, it [role distance] dissociates power from the body; on the one hand, it reverses the course of the energy, the power that might result from it, and turns it into a relation of strict subjection.19

Item 2: Michel Foucault’s description of the construction of soldiers in 17th Century Europe.

In *Discipline and Punish: The Birth of the Prison*, Michel Foucault states:

What was then being formed was a policy of coercions that act upon the body, a calculated manipulation of its elements, its gestures, its behaviour. The human body was entering a machinery of power that explores it, breaks it down and rearranges it. A ‘political anatomy’, which was also a ‘mechanics of power’ was being born; it defined how one may have a hold over others’ bodies, not only so that they may do what one wishes, but so that they may operate as one wishes.20

Item 3: A parable told to children across the region encompassing Turkey, Azerbaijan, Iran, and Uzbekistan.

Hodja Nasreddin received an invitation to a banquet. Not wanting to appear pretentious, Hodja decided to dress in simple clothes. However, when Hodja arrived at the banquet he found that he was ignored by all present. When dinner was placed on the banquet table, all guests were invited to sit and eat, except for the Hodja, who, missing out on a seat, returned home both

hungry and upset.

The next time a banquet was held, the Hodja dressed in his finest clothes. He wore a vest of fine silk and brocade and rings on all of his fingers. Now he was greeted wholeheartedly and invited to take the first serving of food and drink.

When his wine was poured the Hodja removed his rings and dropped them into his glass. When his stew was placed before him, Hodja took of his vest and pushed it into his bowl exclaiming, “don’t go hungry, Fine Vest! Make sure you get enough to eat!”

Startled, the other guests asked Hodja Nasreddin to explain his actions.

Hodja replied, “When I was last invited, I arrived in my simple Hodja’s clothes and I was not fed a crumb. This time I arrive in my finest clothes and I am given far more than one man could ever eat. I can only assume it is my clothing and not myself who was invited to this banquet.”

Although the relationship between these three items may not be initially apparent, there is a common thread that ties together misbehaving medical students, 17th century conscription practices, and a sarcastic Seljuk Sufi leader. The similarity between the three lies in the suggestion that an individual can be primed for particular actions (with other individuals, with their environment, or with technological agents) by, quite literally, dressing them for the task.

Also similar to the cases above is a clear sense of user and purpose - junior medical staff don uniforms, and, in doing so, demonstrate their subscription to a larger group of individuals united by the common denominator of their professional title. Clothing, and clothing in the form of uniforms, is not presented here as the unique factor determining the physiological or

---

[21] Stories of Hodja Nasreddin are most often recited, rather than read from a standard copy. An alternate example of the same of the same story can be found in Ashliman. Despite changes to minor details, the general structure, and, more importantly, the didactic purpose remain the same throughout variations.

psychological response of the individual clad. For surgical juniors to be recognised as part of a community of fully enrolled surgical professionals, a network of supplementary factors needs to be in place. The recognition of surgeon as a professional title, the development of hospitals, the existence of hierarchy, and many other factors need to be present within Goffman’s example, as well as those of Foucault and the Hodja, for these cases to hold meaning. Clothing as a kind of technology should not be regarded as a mere means, but as a way of revealing both human and technological activity. A uniform gains meaning because it is part of a system that assigns meanings and roles. That is to say, the enframing of the clothing technology should be considered here. There are questions to be asked in who determines the nature of the uniform, who is dressed in uniform, and the consequences of such dressing.

Clothing acts as a means of communicating a particular set of values or characteristics, which the user wishes to emphasise. Specific clothing can be chosen for its communicative properties, which, in turn, come to signify something of the individual clad. Clothing and the symbolism embedded within clothing have been tied to language. Anthropologists Grant McCracken and Victor Roth highlight two aspects of clothing that liken it to language: first, that clothing expresses social information in an encoded form, and, second, that these codes are not uniformly known by the communities that use them. Professor of semiotics and linguistic anthropology, Marcel Danesi argues for similar significance of clothing, albeit in a different way to that of McCracken and Roth. For Danesi, the significance of clothing as a performative force derives from its association with bodies, where bodies are markers of selfhood. Danesi explains: “Because clothes are worn on bodies, they are perceived as extensions of bodily meanings and are thus tied to varying cultural interpretation.” Further to this, feminist studies, and feminist theories of technology within the study of science and

---


technology, have identified the relationship between socio-technical interactions and symbols, languages, and identities. Sociologist Judy Wajcman argues that an approach that situates technoscience in material semiotic practice allows for an understanding of the way human relationships with technology shape subjectivity of gender. Such arguments extend outwards from clothing to uniforms. Individuals may elect autonomously to associate with uniformed groups and with the values linked to particular uniforms and in this way, individuals are able to maintain autonomy even when dressed by others.

Surgical juniors may not necessarily choose their uniforms, but it would not be contentious to claim that they do, by and large, elect their subscription to the field of study signified by their uniform. Clothing and uniform can be treated as distinct items. Clothing, here, refers to those garments selected by an individual for their own use. Uniform, here, refers to those garments that, while not explicitly selected by individuals, represent a set of values or an organisation with which individuals elect to align themselves.

A distinction between clothing and uniform is important when we consider garments that do not belong to either category. The patient-worn, back tying, unisex hospital gown is one such garment. It is instinctively jarring to categorise the gown as clothing in that the gown is a garment that is assigned to individuals, rather than selected by individuals. While it is possible to argue that an individual could elect to wear a patient gown what is of interest here are instances that take place within the nosocomial setting, at which point patients are expected to be donned in gowns regardless of their willingness or lack of willingness to be dressed in them. Alternatively, it could be argued that while patients do not necessarily elect to wear patient gowns, they do select their participation in a health care structure in which

---

25 Ibid.
27 I would like to recommend the use of a sterilised hospital gown, outside of the hospital setting, as an excellent apron to don when deep-frying. I do not wish to elaborate on the many parallels between surgery and deep-frying, except that both processes can be messy.
patient gowns pay a central but often unquestioned role. As in the previous instance, what is of concern here is the decision-making at the instance of donning.

Nevertheless, while possible, it is unlikely that patients can be argued to elect to align themselves with the characteristics of the group signified by the hospital gown, in particular because patients do not assign themselves gowns. The patient gown does not indicate membership to a group in a position of relative power and prestige. It does not indicate that the individual wearing them has special responsibilities and prerogatives. This position outside clothing and uniform makes the hospital gown an interesting case for investigation.

In order to better understand the method and circumstances that allow for a reconfiguring of individual identities, processes of identity building and the related potential of identity subversion need to be outlined first. Within this review of literature, I provide an overview of identity construction across the disciplines of linguistics, gender studies, and science studies. Performativity, discipline, and shaping of bodies will be considered, opening a space for consideration of the role and relationship of artefact. Before venturing into this overview of literature, a brief material study of the patient gown will be provided to define the artefact at hand and to draw a boundary around what is and what is not at stake within this thesis.

1.1. ‘Cause we are Living in a Material World:

The gown as material artefact

The back-tying patient gown is an item of personal protective equipment worn by medical patients and closing with tie-fastenings on the wearer’s posterior. The garment is unisex and made to adhere to nation-specific standards of one-size-fits-all.

The Australian Standard defines personal protective equipment as “anything used or worn by a person to minimise risk to the person’s health or safety and includes a wide range of
clothing and safety equipment." 28 The Standard elaborates that the selection of proper personal protective equipment requires “consultation with users and their representatives” including evaluation of risk and performance requirements, compatibility of multiple protective equipment forms, consultation with supplier, and compliance to Australian Standard.29 In such accounts of the gown, the patient uniform is presented as dissimilar to the specialised gowns worn by patients during specific operative procedures. In these instances, the back tying gown does not serve a particular functional purpose beyond replacing a patient’s ordinary clothing.30 31

The Council of Textile and Fashion Industries of Australia notes that within Australia, no standard model of sizing exists for men or women’s clothing, complicating the categorisation of one-size-fits-all.32 The Australian Standard AS1344-1997 states that a standard for sizing of clothing existed within Australia but has since been withdrawn. It is possible, then, that gowns used in Australia were designed to suit a now defunct standard of sizing, or that gowns follow the one-size-fits-all standard of their nation of manufacture.33 While the particular size range for patient gowns in Australia remains unclear, the general structure of the patient gown as loose fitting with adjustable ties allows for a broad range of adult sizes.

The patient gown is recognised by the titles ‘examination gown’, ‘hospital gown’, ‘johnny shirt’, ‘johnny gown’, and ‘johnny’, with ‘johnny shirt’, ‘johnny gown’, and ‘johnny’ all being particular to the United States. While the origins of the patient gown are remarkably difficult to determine, investigating the origin of the name

29 Ibid.
30 Edvardsson, “Balancing Between Being a Person and Being a Patient”, 5
31 As will be demonstrated on page 21, this image of the gown is, at times, contested.
Johnny in association with the patient gown provides general information on the age of the artefact. A definition for ‘johnny’ does not appear in the Oxford English Dictionary, but is recognised by the Webster’s Dictionary where it is defined as “a short gown with no collar and with an opening in the back for wear by hospital bed patients”, a description matching the basic design elements of the currently used patient gown. The Merriam-Webster Online entry for ‘johnny’ places the origin of the moniker in the year 1673, suggesting that gowns of this sort came into existence within or before the 17th century. Beyond this, the origins of the patient gown are remarkably under-documented. Considering the date listed, it is unsurprising that so few document records exist; archives of 17th century patents are neither as common nor as extensive as present day patent listings. Furthermore, the lack of concrete records on the origin of the patient gown may be due to the gown’s functional nature. While it is possible to find historical accounts of physician and nurse uniforms, patient uniforms are not included in such historical studies. Christina Bates, curator at the Canadian Museum of Civilisation makes a case for investigating nurses’ uniforms. According to Bates, nursing uniforms have been “practical, symbolic, and active in creating patterns of behaviour, attitudes, and values that defined generations of nurses.” Moreover, for Bates, studying nursing uniforms is akin to studying the nursing profession as professional interests are reflected in

34 Gove, Philip Babcock, ed., “Johnny.” Webster’s Third New International Dictionary, (Springfield, Massachusetts: G. & C. Merriam Company, 1961), 1218. The dictionary sites “R. M. Keith” as the first to use ‘johnny’ in reference to a patient garment, in the sentence “the one string at the back of the neck of the johnny was undone’. R. M. Keith could refer to either Robert Murray Keith or Robert Murray Keith II, both 18th century British diplomats. However, this is complicated by the Merriam-Webster Online date of first use at 1673. It is possible that this conflict is the product of revisions between the two dictionary editions.

35 The etymology of the hospital johnny is seemingly as much of a mystery as the garment itself. The American Heritage Dictionary suggests that the etymology of johnny derives “from the name Johnny, nickname for John”. Nonetheless, the American Dialect Society Mailing List proposes that the name derives from the gown’s non-restrictive character when using bathroom facilities – or, colloquially, “the john”. Should the latter explanation be the case, the johnny title makes an interesting addition to the humiliating potential of the gown. In addition to this, the patient gown is listed as one of many possible definitions for the term “johnny”. The Historical Dictionary of American Slang lists possible definitions for ‘johnny’ in the following order: a privy or lavatory, a toilet commode, the penis, a hospital gown, a condom. The patient gown, then, is one of many unpleasantries that can be invoked with the same name.

alteration to uniform design. Nonetheless, patients do not traditionally constitute a professional group. A possible avenue for historical examination of patient gowns may be to investigate discussions of patient gowns in patient movements. Nonetheless, such an investigation, while useful in understanding transformations in the patient gown, would offer little on understanding the origin of the patient gown. As such, an investigation of patient movements is outside of the concerns of this thesis.

The Historical Dictionary of American Slang pins the gown to a time and a place, albeit in somewhat vague terms, listing that the term Johnny was “common in Boston area hospitals from ca1900, but apparently unknown elsewhere.” McCollum and Spooner, define the gown as follows:

A short-sleeved, thigh-length garment worn by patients in hospitals and other medical facilities. The one-size-fits-none garment remains one of the least loved aspects of American medicine. The hospital gown can be traced back as far as the 1800's where it was no more than a nightshirt with a slit up the back. Since the 1920's, only minor variations have managed to make their way to hospital rooms.

What is demonstrated by all of the above definitions and emphasised by McCollum and Spooner’s account is that the slow rate of change to patient gown design is as central a characteristic of the gown in its overall function.

---

37 Ibid., 171.
38 Notably, a very different time and place to that listed by Merriam Webster.
While these descriptions and accounts of the patient gown do not provide specific details of the gown’s origin, construction, and original design, they are nonetheless useful in ascertaining certain features of the artefact. Treating these descriptions as clues, the following can be said of the patient gown: from the description of the johnny gown as lacking a collar and having an open back, it can be inferred that the open-backed feature of the gown, the most markedly noted and criticised component of its design, has been a longstanding characteristic of the patient gown. From McCollum and Spooner’s definition of the patient gown, it can be suggested that redesign of the artefact has been minimal. Using all of the above accounts, it can be argued that the gown is heavily integrated, if not naturalised, into the structure of the clinic.

An alternative interpretation can be made from the above data. The lack of concrete details on the origin, design, and construction of the gown does not necessarily stem from a lack of interest in keeping records in general, but rather a lack of interest in keeping records of the patient gown as a single kind of technology. Archival records have been kept of professional uniforms, such as surgical and nursing gowns. Similarly, patient records have been kept. Nonetheless, patient gowns do not fall under the category of professional uniform, nor are the garments worn by patients particularly crucial in the construction of patient medical records. Mundane technologies, as discussed in the introductory chapter, carry the potential for near-invisibility. The lack of data, and, occasionally, conflicting data on the genesis of the currently used patient gown (such as conflicting dates given for the first introduction of the patient gown) can be interpreted here as a demonstration of its success and its intrinsic association with patient identities.

Patient gowns are currently characterised by general appearance and function rather than by any single registered design, further complicating the task of record keeping. The gown can be constructed from multiple textiles and is not defined solely by such textiles. Similarly, the gown can be for single or multiple wear. Gowns deemed for single use cannot be cleaned
after use or can be cleaned and maintained for a limited use threshold determined either by
cycles of usage or levels of soiling. Gowns deemed fit for multiple wears must demonstrate
a level of durability allowing for multiple sterilisation cycles with acceptable gown
performance.42

The gown’s noted purpose is varied and includes the following: tool for minimisation of
threat of disease acquisition between patient and medical staff, tool for minimisation of threat
of disease transfer between patients, preventative device against the development of antibiotic
resistant strains of common nosocomial organisms, means for prevention of contamination of
clothing, tool for prevention of fluid transfer to mucosal membranes and skin, access point to
patient bodies for diagnosis and treatment, communication of social status, occupation, role,
intelligence, conformity and individuality, and, perhaps most interesting in light of nursing
concerns, as a marker of group membership for patient peace of mind and solidarity.43

Reusable forms of the gown are constructed from five distinct types of medical textile.
Medical textile is defined as “a type of advanced technical textile and is classified according
to its technical performance and functional properties as being suitable for medical or
hygienic properties.”44 As such, investigating the medical textiles deemed suitable for patient
gown construction betrays something of what is considered essential or, at the least, important
to the gown’s function. The popularity of each textile to the production of patient gowns is
relative to temporal understanding and values within healthcare. Selected textiles are expected
to have properties of fluid resistance, breathability, and easy sterilisation. From the late 19th
century to the 1970s, gowns were most frequently constructed with 140 thread count cotton

---

42 Ibid.
45 Edvardsson, “Balancing Between Being a Person and Being a Patient,” 5.
muslin. This textile is soft, breathable, absorbent, and can be easily draped.45 After the importance of fluid resistance in health maintenance was made evident, two new textiles were introduced: blended sheeting (180 thread count percale) and T280 barrier (170 to 280 thread count cotton or cotton-polyester blend).46 These introduced the qualities of pressability and water resistance in reusable cloth. From the 1980s onwards, advancements in textile manufacture allowed for garments that were fire-retardant, low lint producing, and durable.47 These qualities were all incorporated into the gown. In this period gowns were made from polyester sheeting and composite materials.48 Single use gowns are less varied in their construction. Such gowns are produced with combinations of natural materials derived from wood pulp and cotton, with synthetic fibres such as polyester.49 Specific materials used here are spunlace, spunbond, spunbond-meltblown-spunbond, and wetlaid.

With this background, a profile of the patient gown can be drawn. The gown, as a material object, is an item of protective clothing, open in the back, and secured by fastenings, worn by patients receiving medical care. The gown’s general structure has changed little over the course of four centuries. The gown’s material composition has changed significantly in keeping with changes to understanding of health care and textile manufacture. The general structure of the gown is not case-specific to patient needs. The textile of the gown, on the other hand, is case-specific to patient needs. With such a background of the gown as a material object, a relevant boundary can be drawn around items of attention within both patent application and industrial design. The remainder of this chapter, and, with that, the remainder of this thesis, can be assumed to be concerned with the artefact described and defined in this material study.

45 Rutala and Weber. “Gowns and Drapes in Health Care”, 249.
46 Ibid.
47 Ibid.
48 Ibid.
49 Ibid., 250
1.2. Q: Are We Not Men?

Mundane artefacts, performativity, and the construction of individuals

David Edgerton’s *Shock of the Old* develops an argument in favour of so-called mundane technologies. Edgerton argues:

> A use based history will do much more than disturb our tidy timelines of progress. What we take to be the most significant technologies will change. Our accounts of significance have been peculiarly innovation-centric, and tied to particular accounts of modernity where particular new technologies were held to be central. … A central feature of use-based history, and a new history of invention, is that alternatives exist for nearly all technologies … too often histories are written as if no alternative could or did exist.\(^{50}\)

Mundane technologies, much like Hyacinth Bucket,\(^{51}\) are victim to a name that does not adequately represent their social significance. What Edgerton demonstrates is the danger of such misrepresentation. In labelling mundane technologies as “mundane”, their role and function in social activities and human interactions is undermined or at least rendered insignificant and invisible. Technology is so ever-present that the interactions we maintain with technological artefacts can easily go unnoticed until the moment that their use is made explicit, or during an instance of technological breakdown.\(^ {52}\) The ubiquity of mundane technologies makes them particularly prone to such invisibility. The grand technological achievement of a radio telescope is more difficult to make invisible than the technological achievement of the ball point pen, no matter how much more essential or useful the ball point pen.

\(^{50}\) Edgerton, *The Shock of the Old*, xii-xiii.

\(^{51}\) Pronounced, of course, “bouquet”.

\(^{52}\) The purpose of a cardiac pacemaker is not to act as a modern day Sword of Damocles. Properly functioning, pacemakers become incorporated into the user as a whole, who is then able to forget of the device’s existence, or, otherwise, consider it as frequently as they would any other internal organ. Nonetheless, there are still instances in which the owner of the pacemaker is reminded of its presence: when offered items that would accelerate heart rate or when passing the magnetic field of airport security. Certainly, when a cardiac pacemaker breaks down, its user is given a significant reminder of its presence.
pen to everyday life. There is a point to be made here about the everyday use of the artefact. To the skilled astronomer a radio telescope may well indeed be the stuff of everyday life. What is important here is not the specific artefact but the commonality of that artefact to its user. Alternatively, mundane technology can be understood as an example of Heidegger’s account of technology as an obligate ‘something-in-order-to’. Under this account, technology cannot be understood in a form distinct from the relationship it holds with its own ‘equipment-structure’, or the network in which it is used. In short, the subject/object distinction between the hand and the hammer is lost when the hammer is placed in the hands of the skilled carpenter. Nonetheless, Edgerton’s approach is favourable to the argument formed within this thesis. While Heidegger’s description of the readiness-to-hand of technology emphasizes the embedded nature of technology, such a view also undermines the possibility of an investigation of a single technology. Following from this, the practices involved in using such mundane technologies may become equally invisible. In many respects, the enormous success of these mundane technologies entails their invisibility—at no moment is it necessary to open the proverbial black box. In emphasising the significance of mundane technologies, such as the patient gown, it becomes possible to tease out how such technologies not only play a unique technological role but also how such technologies shape the societies and individuals who employ them.

### 1.2.1. Performance and Performativity in the Study of Mundane Technologies

Performativity, generally defined, encompasses those actions and values, which produce

---

53 This should not be taken as a suggestion that bigger is better in the sense of being less mundane. An alternative example that could be given here is the conceptual contrast between vitrified clay pipes and the cochlear implant. The cochlear implant, small as it is, is recognised as a sophisticated technological achievement, clay pipes, on the other hand, are significantly more mundane, regardless of the havoc their absence (and, consequently, the absence of organised sewerage systems) would create.


events, as well as the explanatory basis necessary for those events to hold meaning.\textsuperscript{56} Mundane technologies and performance of the self are both rendered invisible by their own ubiquity. This section will address and evaluate several interpretations of performativity before exploring how studies of individual performance can contribute to a study of invisible technologies and vice versa. To do this I will address several interpretations of performativity. These are the concepts of performativity outlined by Jacques Derrida, Judith Butler, Erving Goffman, Andrew Pickering, and Annemarie Mol. Rather than provide a simple overview of the literature on performativity, these various iterations of performativity are brought together here to offer, and in later chapters apply, a means of analysing the generation of identities through and with artefacts.

It is important to note that in taking a user-centred approach to understanding technology, analysis does not need to be limited to performativity. Feminist approaches within science and technology studies have played a formative role in drawing attention to the use of technology, rather than their invention or construction. Lending agency to users of technology, and, in particular, female users of technology, is central to feminist approaches. Cynthia Cockburn and Susan Ormrod argue that social studies of technology approaches have either ignored or disregarded the influence of gender on the development and use of technology. They counter this type of analysis by arguing “a feminist analysis on the other hand suggests that a person’s sex almost always counts.”\textsuperscript{57} From here Cockburn and Ormrod provide an account of gender dynamics at the point of manufacturer development and sale of a single technology: the microwave oven. While such an approach highlights issues of user diversity and relations of power, I set my gaze in this literature review on the practice of using technology itself. Also, feminist studies of technology should not be considered as mutually exclusive from performat ive evaluations of technology. Feminist studies of technology and their emphasis on domestic technologies not only contribute to a study of performat ive roles

but to a study of mundane artefacts. Historian of technology and scholar of gender and science, Ruth Schwartz Cowan has argued that an emphasis on high-tech technologies in studies of technology has distracted scholars from the more furtive role of mundane technologies in the shaping of daily life and domestic spaces.\textsuperscript{58} For Cowan, industrialisation and the effects of industrialisation on the home, not only shape domestic life but the interactions, work, and roles of individuals in broader social contexts.\textsuperscript{59}

A performative approach is favoured here over both a co-construction approach and a ‘making up people’ approach.\textsuperscript{60} Where co-construction provides a lens for observing the role of clinics in the development of identity relationships between patient and patient gown, these approaches do not account for the internalisation of the patient identity by the individual embodying that identity. Using performativity emphasises both the corporeal and the institutional aspects of the gown. In addition, performativity carries a dramaturgical connotation that is appropriate for the manner in which the patient and the clinical hierarchies are enacted in practice. The argument presented here is that it is not simply that clinics align patients with the gown; patients align themselves with the gown and it is through this alignment that the administration of existing healthcare models becomes possible. Furthermore, adopting a performative approach over a co-construction approach provides the promise of altering patient experiences and realities through the recognition and potential alteration of clinical practices.

The origin of the concept of performativity is credited to the “performative utterances” of John Austin.\textsuperscript{61} For Austin, these performative utterances describe instances in which words

\textsuperscript{59} Ibid., 226-228.
comprise a component of action, rather than words that simply signify action. The example given by Austin is the performative utterance of “I do” within a wedding ceremony. As Austin explains: “When I say “I do” (sc. Take this woman to be my lawful wedded wife), I am not reporting on a marriage, I am indulging in it.” While such performative utterances are a component of the action, they are not the action in and of themselves. Performative utterances must take place within a defined social context for the action, or, what Austin refers to as an utterance’s “appropriate circumstances”. The words “I do” do not comprise the action of marriage, despite their essential role in the performance of the task – the members of ABBA are not at risk of being charged with polygamy here. For the “I do” to hold the performative function, there must also be a complementary cultural background, an understanding of vows, the concept of marriage, an appropriate setting in which a marriage can be conducted, including the relevant officials, and so on. In Austin’s view, performative actions are limited to speech acts. The success of a performative utterance can be determined by the performer’s intention and the meaning of the performance can be determined by the context. This leaves Austin’s description open to easy criticism. Austin does not provide any solution to the issue of defining relevant context, or the impossibility of determining the intentions of others. However, as indicated below, other authors have developed or altered Austin’s stance such as to overcome these problems.

1.2.2. Performativity and the Development of Context and Identity

While performativity is credited to Austin, increased interest and development of the notion can be tied to Derrida and his critical literary analysis of deconstruction. Derrida’s interpretation differs from that of Austin in that it expands the place of performative action beyond verbal speech acts by emphasising the indeterminability of the context of texts and utterances. This is most easily understood through the example of written communication.

---

62 Ibid., 22.
63 Ibid.
The context in which written texts can be read varies significantly, while the particular intentions of the composer of the text are lost in the process of reception. For Derrida, the meaning of performative utterances can only be known in instances where the entire context that led to the utterance is known as well. As such instances can never be fully determined, the question of the meaning of utterances becomes irrelevant. This does not, however, make performative action entirely irrelevant to attention. Under Derrida’s interpretation of performativity, performative actions are not dependent on an unknowable, pre-existing context, but on the new contexts engendered by the response to the performance. Where Austin views language as the agent of performative utterances, Derrida extends performativity beyond language to include the development of new contexts.

Gender theorist Judith Butler extends performativity away from the speech acts of Austin and builds further on the construction of context introduced by Derrida to include the construction of identity, rather than language. Butler criticises the paternal law structures of language of Jacques Lacan64 both in relation to its dismissal of female perspective and, more pressingly, its inherently hierarchical structure.65 On this foundation, Butler introduces the claim that humans and, in particular, the gender of humans, are formed through the language that is used to describe them. Butler explains:

The anticipation of an authoritative disclosure of meaning is the means by which that authority is attributed and installed: the anticipation conjures its object. I wondered whether we do not labour under a similar expectation concerning gender, that it operates as an interior essence that might be disclosed, an expectation that ends up producing the very phenomenon it anticipates.66

64 What is important here is not Lacan’s law structure of language itself but Butler’s interpretation of this structure. Nonetheless, for the sake of thoroughness, an attempt to decipher the indecipherable Lacan will be made here. The paternal law structure of language to which Butler responds can be understood here as a system in which the learning of a language is a continuation of the capacity and compulsion to ascribe to a structure of rules set in place by a deep-seated understanding of convention and authority all centred on some general sense of the ‘father’. 65 Butler, Judith, Gender Trouble: Feminism and the Subversion of Identity, (London: Routledge, 2011), 107-108. 66 Ibid., xv.
For Butler, gender is no more a natural kind than a patient is. Instead, the origins of both gender and, by the same token, patients, can be found in institutionalised practices and discourses which by themselves find their origin within particular social and political histories that first established such kinds and then perpetuate them through their own reproduction. It is not only language and context that are produced by performance here: human actors are similarly constructed. For Butler, gender identities are built through the repeated action of gendered gestures, which, over time, allow for an imposed sense of gender identity without the need to take part in the initial performances. Here performativity describes the development of social meaning and identity through the employment of language that is embedded with social expectations. This is extendable, again, to the notion of patients, where the repetition of expected behaviours of patients and expected characteristics can be triggered by the slightest of catalysts: a change in costume.

Where Derrida and Butler contribute to an understanding of the development and maintenance of identities, combining these approaches with Goffman’s work on social encounters teases out those behaviours, interactions, and devices that allow for those performatve actions. Within *The Presentation of Self in Everyday Life*, Goffman argues that when individuals interact with each other and with their environment, they do not simply present themselves, they perform a *kind* of self. In this way, individuals both construct and maintain their identities. Situated activity systems, according to Goffman, are closed systems of interdependent actions that are “self-compensating (and) self-terminating” presentations of the self.67 Within such social systems, there are various rituals of interaction coupled with cognitive conventions. For Goffman, an engagement between two or more individuals involves the adoption of a battery of pre-existing values, ideas, and expectations, which must be shared between the actors if the engagement is to be meaningful. Goffman explains:

When an individual plays a part, he implicitly requests his observers take seriously the impression that is fostered before them. They are asked to believe that the character they see actually possesses the attributes he appears to possess, that the task he performs will have the consequences that are implicitly claimed for it.\textsuperscript{68}

What takes place here is an exchange heavy with social meanings and symbols. This does not necessarily have to be recognised by the actors as a social engagement for the exchange to be meaningful. Goffman notes that an individual may be “fully taken in by his own act; he can be sincerely convinced that the impression of reality which he stages is the real reality” but that the individual could also understand the exercise simply as a means to an end with “no ultimate concern in the conception that they have of him or the situation.”\textsuperscript{69} The consequence of these enacted roles determines the outcome of social interactions regardless of the authenticity of the action, as it is these acts that form a context in which other individuals can respond. Goffman describes this kind of interaction between fooled or un-fooled actor and audience as a “front” and it is this front that “functions in a general and fixed fashion to describe the situation for those who observe the performance.”\textsuperscript{70} Fronts, then, are the process through which the social and collective understanding of the individual’s actions and performance are married with social and collective expectations and values.

There are slight points of contention between Butler’s and Goffman’s descriptions of performativity. For Butler, identities are constructed through performance, rather than confirmed through performance. Such performance, unlike that of Goffman, does not end with the ending of the performative action: the character of the actor is permanently transformed as a consequence of the action. Nonetheless, the two approaches can be viewed as complementary in that both emphasise daily events and activities as the agent of performativity. While Butler argues that the distinction between genders is a product of the

\textsuperscript{68} Goffman, Erving, \textit{The Presentation of Self in Everyday Life}, (Gloucester: Peter Smith Publisher, Incorporated, 1999), 17.
\textsuperscript{69} Ibid., 17-18
\textsuperscript{70} Ibid., 22.
specific use of language, she places this use of language in a broader context of the practices, communications, instruments and procedures enacted through mundane, yet pervasive acts.

Within Goffman’s view, technological materiality and social performance are closely linked: technology plays a crucial role in staging, performance, and mediation of social roles. Of further importance in Goffman’s work is a focus on mundane and invisible technologies. In Pinch’s article on Goffman and technology, the explanation is given that, often, “old technologies become invisible, just the stuff of life.” That is, as such artefacts may be invisible they also become a natural aspect of social interactions. While such artefacts may be invisible, their effect on social engagements can continue to be as significant as that of ‘hi-tech’ technologies. Edgerton has shown that current studies of technology focus on innovation and emphasises that this is not necessarily an indicator of significance. He argues that in the case of the significance of any technology there are multiple considerations to be made, and that “how important is difficult, perhaps impossible to assess. When it had the greatest effect is also difficult to assess.”

There are, nonetheless, commonalities between the performativity of Butler and the performance of Goffman. According to both authors, performative actions are built upon mundane, pervasive actions – either in interactions between individuals or through the use of language. It is not a far stretch to argue that everyday technologies contribute to the stylised repetition of acts that constitute individual identities, performances, and gender. Clothing, then, as the interface between our bodies and our environment, must contribute to our development of such identities.

---

72 Ibid., 409.
73 Edgerton, The Shock of the Old, 1.
1.2.3. Performativity Within Social Studies of Science

Pickering, in *The Mangle of Practice* (hereafter: the *Mangle*) applies the concept of performativity to broad institutions engaged with larger networks rather than to individuals engaged in actions within themselves and with other individuals. Representational views of science, as described in the *Mangle*, create an image of scientific practice as one that seeks out true representations of the world through artefacts such as measurement instruments and mirrors, or through making claims on “how the world really is.”

This forces a division between, on the one hand, material performance, and, on the other, knowledge and its representation. Representational views can be found in texts such as historian of technology David Noble’s *Social Choice in Machine Design*, which encourages the view that managers and factory workers, that is to say, human agents, are the impetus for changes to work processes rather than the influences from any non-human agent. In adopting such an approach, scholars investigating science engender a set of concerns about science, specifically, concerns of realism and objectivity. Pickering’s underlying argument within the *Mangle* holds that a representational view of science misrepresents the activity of science. Instead of encouraging misrepresentation, a more appropriate view of science would be to view science as performative action. For Pickering, science should not be understood as an activity solely concerned with knowledge but should be seen as an activity that also includes material, social, and temporal dimensions, as it is within these dimensions that scientific practice takes place. Rather than starting with facts and observations as the origin of scientific practice, as in the representational idiom, Pickering argues for a position that starts with agency.

---


Taking an agency-centred approach accounts to scientific practice allows for the development of a system of science in which “human and material agency come to the fore (where) scientists are human agents in a field of material agency which they struggle to capture in machines (and) human and material agency are reciprocally and emergently intertwined.”

Where human society informs the intentions underpinning scientific practice, a more symbiotic view of practice has human and non-human agency working in concert, resulting in a reconfiguration of human intention. In this way, scientific endeavours and technological developments are formed in a system where the world pushes back against expectation and intention, and shapes human activity similarly to the means by which it shapes landscapes. Pickering explains: “the world, I want to say, is continually doing things, things that bear upon us not as observation statements upon disembodied intellects but as forces upon material beings.” This back-and-forth between the world and the individual necessitates a response to material agency. The example selected by Pickering is particularly apt to this thesis, “even in an English summer … one would die quite quickly of exposure to the elements in the absence of clothing.” Rather than consider the relationship between the world and the individual as one in which the individual views the world from a neutral position, within a mangled process, the individual is pushed back upon by the world. While humans actively construct technologies, once constructed, human actors ease into a passive position wherein the breadth of action, by and large, is limited to maintenance of that technology. The human role then is not to continuously construct but rather to balance expectations for a technology with the capacity of that technology to perform such expectations.

Distributing agency among material and structural powers removes the human actor from the centre of sociological attention. Technologies do things that were not necessarily intended by their designers (I will return to this at a later point). If we accept the argument that humans

---

76 Pickering, The Mangle of Practice, 21.
77 Ibid., 6
78 Ibid.
79 Ibid., 21-22
are in some part configured by the technologies they use, then to solely privilege human agency over non-human agency makes little sense. Within Where are the Missing Masses? The Sociology of a Few Mundane Artefacts, Bruno Latour makes an argument for the potential of artefacts to shape the actions of their users. The insistence underpinning this assertion is that non-humans, or technologies and various artefacts, balance the scale of morality within society (morality here being the missing mass of our social equations) and that this moral responsibility that has been shifted to artefacts has been largely ignored in sociological studies. Rather than discuss the moral aspect of such technologies, Latour’s text is used here to emphasise the interwoven relationship between the actor and the world presented within the mangle. Technologies such as hospital gowns should not be viewed as items simply used by humans in the transfer of morals, but artefacts that help to constitute humans or human roles; temporary human roles or specific roles in a social, technological, and/or medical system.

Under such descriptions, the script embodied by a given technology is complemented in the actions of the user. As Latour puts it: “an unskilled human groom thus presupposes a skilled human user.” In this vein, scientific practice is always contingent on the developments that precede it and, as a consequence, no single element within this mangle (such as epistemic rules or social interests) is immune to change or permitted a stable position as an explanatory cause. Unlike the case of the representational idiom, the performative idiom can be carried over into analyses of processes of production. The performative perspective put forward by Pickering holds that the form of technology and artefact, and the performance of such technologies and artefacts, must not be overlooked in the analysis of changes to work processes. This line of argument finds support in the study of mundane technologies. Mundane technologies, like performative roles, can become so integrated into the actions and gestures of human actors that their influence is rendered invisible.

---

80 Ibid., 46.
82 Pickering, The Mangle of Practice, 216.
Understanding Pickering’s approach to performativity provides a means of teasing out the role of performativity in the writings of Annemarie Mol. Mol’s *The Body Multiple* presents an anthropological account of hospital practices surrounding atherosclerosis in order to make the theoretical argument that our daily reality does not consist of any single reality but of multiple, concurrent realities. It should be noted that within the main body of the text, Mol makes an explicit argument against being tied into analyses of performativity. Mol states:

(Read text)

While Mol is not interested in being aligned with the heavy connotations of existing terminology in the main body of her text, the subtext of *The Body Multiple* makes much reference to, and places much emphasis on, the importance of performative roles as a background to the work. In any case, the text provides a further contribution to the concept of performativity, whether or not it itself elects to be construed as such. If my reading of Mol is correct, her insights can be synthesised by Pickering’s view. This synthesis offers an informative perspective on the roles of both patients and gowns. Mol focuses on atherosclerosis and the observation, interpretation, and shaping of the disease through various medical practices and the differing conceptualisations of the disease stemming from these different practices. It is not only atherosclerosis that gains multiple identities as a consequence of medical practice. Patients, their bodies, and medical experts are all formed through the practices surrounding the diagnosis and treatment of atherosclerosis. Enactment, as Mol describes, can only exist through activity, and so, rather than align with

---

anthropology, Mol describes the text as a praxeology, with its focus squarely on practices.\(^8^4\) This aligns quite neatly with Pickering’s focus on performative idioms as a lens to scientific practice and the cultural multiplicity of science.\(^8^5\)

Mol contributes to a discussion of performativity due to this focus on practice rather than simply objects or individuals. Under Mol’s praxeology, it becomes clear that when one excludes practices and the actions of practice, it becomes difficult if not impossible to understand the objects and subjects involved as these are given shape by those practices that engage them or that they are engaged with. As Mol explains: “It is possible to refrain from understanding objects as the central points of focus of different people’s perspectives. It is possible to understand them instead as things manipulated in practices.”\(^8^6\) This can be understood to apply both to patients and patient gowns.\(^8^7\) Practices applying to both patients and patient gowns can be seen, under both Mol’s and Pickering’s interpretations of enactment and performativity, as shaping their interactions and identities. While a gown may be designed with a specific intention in mind, its use in a broader context allows for some intentional, or more relevantly, inadvertent tweaking to its function. Patients, similarly, can be altered in some way through their interactions with gowns as a result of the dance of agency already highlighted in Pickering.

In *The Body Multiple*, Mol also employs an aspect of Goffman’s performativity by adopting Goffman’s sociology of the individual as the starting point for an argument that sociological claims can be broadened to include all forms of subjects and objects. For Goffman, individuals engaging in social interactions do not present their authentic selves, but instead present a public persona which is specific to the context in which it is used. In this way,

---

\(^8^4\) This also aligns with Nye’s description of technology as practice. Nye, *Technology Matters*, 12.

\(^8^5\) Pickering, *The Mangle of Practice*, 216.

\(^8^6\) Mol, *The Body Multiple*, 4.

\(^8^7\) Assuming that we can momentarily consider patients to fall under the category of “objects”.
identities are not expressed but, rather, performed. They do not represent the ‘true’ character of the social actor. Yet, they do represent the social reality which other people react to.

Mol also notes Butler’s argument that identities (specifically gender identities) are not necessarily preceded by performance but constituted by performance. Nonetheless, Mol disagrees. For Mol, Butler’s argument is incomplete without a study of the mundane acts in which such identities are performed. Since, Mol argues, bodies form an important part of individuals’ identities, performances must be seen as not only social in nature but also material in nature. This, too, leads to an evaluation of the mundane artefacts and dressing as the middle ground between the material components of our identities and the props assisting our social interactions.

1.2.4. In Summary

The relevance of performative studies to the patient gown is contingent upon the role of patient gowns in the clinical sphere. Considering the patient gown as a tool of patients provides little explanation for the low incidence of redesign and high incidence of criticism levelled at the artefact. Nor does an approach that treats the gown as a patient operated tool account for the kinds of behaviour associated with donning gowns. The patient gown as a technology of medical staff, of observation, of dressing, of uniforms, or of discipline, allows for the inclusion of performativity. Placed in the context of Derrida, Butler, Goffman, Pickering, and Mol’s variations of performativity (or enactment), the gown is made privy to larger social structures in the clinic, reflecting political and hierarchical structures in institutions in general. In the roles of medical technologies, observational tools, dressing devices, uniforms, or disciplinary tools, gowns as performative objects contribute to an understanding of the transformation of everyday individuals into patients.
1.3. Look Out Honey ’Cause I’m Using Technology

Clothing, Discipline, and Nursing

In both Western and Eastern literary traditions, numerous tales of transformation catalysed by the act of changing clothes exist. Hodja, in the narrative noted previously, changes his coat, and, like a patron observing a “no shoes, no service” sign at a Returned and Services League Club, metamorphoses from undesirable riffraff to acceptable dinner guest. The Emperor, of new clothes fame, is made the promise of clothing that will act as a signifier of his suitability to his position and, in donning this clothing, transforms himself in the public eye from Emperor to fool. With the lowering of a trouser hem and the removal of some spectacles, Steve Urkel reveals that he possesses a cool side - his altogether more suave alter ego, Stefan Urquelle.

Nonetheless, there is a question here of what has actually changed and what the mechanism of this change may be. Hodja detects and criticises the transformative power of his clothing while Superman is given the opportunity to be the individual beneath a reporter’s disguise. After all, a book should never be judged on the basis of its cover. That is, depending on whom you ask. Latour, Hirschauer, Goffman, and Foucault each outline a different method for understanding the course and consequence of transforming bodies. These will be contrasted and related back to the dressing of individuals in patient gowns.

1.3.1 Building bodies from Scratch (and sniff)

Bruno Latour, in How to Talk about the Body? The Normative Dimension of Science Studies, considers instances in which the body can be moulded or altered through the introduction of an artefact or technology. These technologies do not comprise any part of the physical body, but nonetheless can be instrumental in the operation of that body. For Latour, this is the
‘articulation’ of the body.\textsuperscript{88} Latour explains: “although (the technology) is not a part of the body as traditionally defined, it certainly is a part of the body understood as ‘training to be affected’.\textsuperscript{89} These technologies are “coextensive with the body”.\textsuperscript{90} To demonstrate this coextensive adaptation, Latour introduces the example of the \textit{malette à odeurs} or case of odours: an odour kit comprised of multiple pure fragrances. This kit is used to train individuals to the level of scent sensitivity required for perfume production where an individual needs to be able to detect distinctions between multitudes of grouped scents. A trained individual is referred to by the title of \textit{un nez}, or a ‘nose’. While this odour kit is by no means a physical component of the body, it nonetheless shapes the way that body operates. That is, the physical form of the perfumer’s nose is not altered by the mallette, but the functional capacity of the nose is trained into detecting a “richly differentiated odoriferous world.”\textsuperscript{91} With the introduction of the technology, the person is transformed into a nose.

Similarly, there is a technologically assisted transformation of people into patients in the clinical sphere marked by the donning of symbols. Unlike the \textit{malette à odeurs}, transformation in the clinical setting does not require training; there is no transformation of physical ability, rather the suspension of particular abilities. The sociologist of health Deborah Lupton notes that a transaction takes place at the point of transformation from person to patient: the individual “hand[s] over responsibility for the management of the illness to the doctor. For these reasons it may be suggested that the complex relationship between patient and doctor is like that between parent and child, with patients relying on doctors to tend to their physical and emotional needs, to nurture and protect them and to take control.”\textsuperscript{92} Dissimilar to Latour’s noses who gain properties without loss, patients gain access to medical care when other markers of their individuality are masked. Whether intending to

\textsuperscript{89} Ibid., 207
\textsuperscript{90} Ibid.
\textsuperscript{91} Ibid.
\textsuperscript{92} Lupton, Deborah, \textit{Medicine as Culture: Illness, Disease and the Body in Western Societies}, (Thousand Oaks: SAGE, 2003), 114-115.
elect medical care for themselves, or relinquishing autonomous control to a clinical system, the individual-turned-patient, to borrow from Goffman, “takes on an established social role” with its associated ‘front’, or fixed form of performance.\(^93\) Regardless of the patient’s choice to elect healthcare or submit to healthcare, “to maintain the corresponding front, the actor will find that he must do both”; in making the choice to be a patient, the individual waives other independent actions.\(^94\)

Moreover, the construction of patients unlike the construction of un nez, does not require training, but does require several preparatory actions. Hirschauer outlines these actions as follows: the patient must be immobilised by being washed, purged, dressed in a white gown, and by being placed in a wheeled bed.\(^95\) From this process, we are able to witness the individual being separated from themselves in a number of ways. First, the patient is relieved of responsibility for the care of their body by being washed. In purging, the patient is shown that others can determine their internal processes. By dressing patients, their capacity for choice is removed, and finally, in placing the patient in a wheeled bed, they lose the ability to determine their own volition. While Hirschauer does not make these claims in his own text, the extrapolation is not an exaggerated one.

Like Hirschauer, Goffman also sets his focus on those actions that prepare individuals for particular kinds of engagements and interactions. Goffman’s Asylums emphasises the unique position held by social establishments or institutions in understanding various processes of human interaction, social stratification, and institution construction. Goffman defines institutions as “places such as rooms, suites of rooms, buildings, or plants in which activity of a particular kind regularly goes on” before dividing such institutions into two taxonomies: institutions in which the practitioner of institutional values meets and interacts with other

---

93 Goffman, The Presentation of Self, 27.
94 Ibid., 22.
members of that institution, and institutions in which interaction is unidirectional.\textsuperscript{96} Using such a categorisation method allows for a comparison of seemingly distinct institutions in such a way that the contrasted institutions inform each other. On their surface, prisons and hospitals appear to be very distinct kinds of institutions; indeed, a prison is not a hospital and a hospital is, thankfully, not a prison. Nonetheless, both environments enact procedures of surveillance, standardisation, and rehabilitation. Goffman’s approach differs to those of Latour and Hirschauer, both of whom describe the context in which an individual is transformed as being largely unaffected by this transformation, in that it attempts to account for both the shaping of individuals and the development of the institution that receives them. If institutions, as sites of uniform practises, can be recognised here as a kind of technology then the contrast between Goffman to Latour and Hirschauer becomes more stark; within Goffman’s text it is not enough to explore how individuals are transformed by technologies, but there must also be a discussion of how technologies are made meaningful by the relationship they hold with human identities.

While discussing stratified institutions, Goffman focuses largely on those individuals at the bottom of the social ladder as a means of understanding how individuals are constructed by their environment as well as how other individuals are cast in particular roles as a consequence of their proximity to others. Preconceived characterisations of various organisational or institutional roles provide individuals with an indication of what they will need to become. Goffman paraphrases Durkheim to explain that behind interactions between individuals within institutions, there are expectations of the outcome of such interactions.\textsuperscript{97} Goffman elaborates:

\begin{quote}
The recruit comes into the establishment with a conception of himself made possible by certain stable arrangements in his home world. Upon entrance, he is immediately stripped of the
\end{quote}


\textsuperscript{97} Ibid., 174.
Having already defined institutions as rooms, buildings, and other such cordoned environments, Goffman now describes a cordoning of identity from individual. In doing so, however, Goffman makes an interesting point on the origin of identity as environment-dependent. Individuals understand their identity in a stable home world. Once this stability is removed, the individual’s identity is revealed as little more than a reaction to a consistent flow of like catalysts. Put differently, in removing one’s identity kit, one is opened to possible personal defacement.\textsuperscript{99} Goffman outlines the change of world as involving more than a change in spatial location. Entrance into institutions involves a series of admission procedures including weighing, assigning numbers, undressing, bathing, assigning to quarters, and dressing in institutional clothing.\textsuperscript{100} Goffman continues: “admission procedures might better be called “trimming” or “programming” because in thus being squared away the new arrival allows himself to be shaped and coded into an object that can be fed into the institutional machinery of the establishment, to be worked on smoothly by routine operations.”\textsuperscript{101}

Returning to the example of the hospital, this approach leads to an interesting account of operations. Individuals are degraded and “mortified” in order to provide a kind of standardised care, which could ultimately be held up as for the patient’s benefit. This would account for particular unchanging, although highly criticised, elements of the patient gown. For Goffman, this degradation is not only good for those operating institutions but also for those recruited into them. Goffman notes that “on the outside the individual can hold objects of self-feeling – such as his body, his immediate actions, his thoughts, and some of his possessions – clear of contact with alien and contaminating things. But in the total institutions

\textsuperscript{98} Ibid., 14.\
\textsuperscript{99} Ibid., 21.\
\textsuperscript{100} Ibid., 16.\
\textsuperscript{101} Ibid.
these territories of the self are violated, the boundary that the individual places between his being and the environment is invaded and the embodiments of the self, profaned."\textsuperscript{102} However, as Goffman elaborates later in the text, explaining: “our giving up our bodies to the medical server, and his rational empirical treatment of them, is surely one of the high points of the service complex.”\textsuperscript{103} As such, what is described is that by undergoing a process of degradation, individuals are separated from their bodies in such a way that they become able to seek medical treatment and care that they would have otherwise been unable to access. Not only are individuals severed from themselves, they are also severed from relationships with all other individuals. The same administrative processes that debase individuals ultimately protect these individuals from otherwise cathecting experiences by first rendering them anonymous.\textsuperscript{104}

While Latour, Hirschauer, and Goffman provide the \textit{how} to the question of shaping bodies, there is a question remaining in why shape them at all?

\subsection*{1.3.2. Discipline, Degradation, and Rite of Passage}

Within \textit{Discipline and Punish}, Foucault evaluates the role of discipline. Foucault pays particular attention to the role uniforms can adopt in the discipline-mediated manufacture of bodies for predetermined role or function. Uniforms are assigned in this context as a demonstration of the degradation taking place; individuals are stripped of the clothing that, as we have seen noted by Holman, signifies their alignment to particular interests, groups or values, and placed within uniforms, identifying only one specific affiliation but nonetheless providing a means of totally constituting the identity of the wearer. The effect of this action is to expose “a formless clay, an inapt body (for which) a calculated constraint runs slowly through each part of the body, mastering it, making it pliable, ready at all times, turning

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{102} Ibid., 23.
\item \textsuperscript{103} Ibid., 340.
\item \textsuperscript{104} Ibid., 307.
\end{itemize}
\end{footnotesize}
silently into the automatism of habit.”¹⁰⁵ That is in insisting upon uniforms, individuals are provided with indicators of what they are to become and reminders of what they no longer are. What remains following this process are standardised individuals or a group of individuals for whom it is possible to have surveillance for the purpose of qualifying, classifying and punishing.¹⁰⁶ Discipline is not uniquely punishing. There is also gratification that can arrive from discipline such as reward and privileges for good behaviour, or, in the case of this thesis, the smooth administration of health care may also be the product of disciplinary structures.¹⁰⁷ Nonetheless, discipline can easily fall into categories of rite of passage, or of degradation.

The reason for the immobilisation recounted in Hirschauer and Goffman can be traced to a system of care based on the medical gaze. For Foucault, the particular body part exposed is of secondary concern to the more paramount issue of observation. Foucault explains: “the study of medicine is focused upon the recurring, objective, quantitative characteristics of categories of the sick rather than upon the unique, subjective, qualitative differences between individuals.”¹⁰⁸ For Foucault, observational actions in medical practice are based on a presupposed “structure of identical objectivity, in which the totality of being is exhausted in manifestations that are signifier-signified, in which the visible and the manifest come together in at least a virtual identity, in which the perceived and the perceptible may be wholly restored in a language whose rigorous form declares its origin.”¹⁰⁹ For the body to be understood it needs to be made understandable; its structures not only exposed but also standardised to comply with the expectations we have of it. Even illness - an anomaly from ‘normal functioning’ is normalised in order to categorise and treat it. Here the scope of observation is made on the external or on the internal made external through patient samples,

---

¹⁰⁶ Ibid., 184.
¹⁰⁷ Lupton, *Medicine as Culture*, 120.
¹⁰⁹ Ibid., 96.
tests, and x-rays. What is not observed, for Foucault, is the experience of the illness. Jewson’s study on the sick man in 18th century medicine disagrees with this view while nonetheless emphasising dissociation of the individual from the patient. Jewson explains that observation extends beyond physical disposition. Rather, the emotional and spiritual life of the patient is drawn out as the basis of understanding their constitution.\textsuperscript{110} What is central, in any case, is that observation and detachment are taking place and this process involves as its by-product, a breakdown in privacy.

According to Donna Haraway, accounts such as the one presented by Foucault lack both enforceability and reliability.\textsuperscript{111} What is demonstrated by Haraway’s text on situated knowledge is that taking the objectifying perspective naturalises the object at hand and, in doing so ignores the performative element of the object as well as the performative position of the observer. As an alternative to the Foucauldian and objectifying view, Haraway emphasises the agency of the object as one that resists and responds to observation in such a way that shapes precisely what is seen. This has significant implication for the hospital-gown-bound patient whose response to observation, for example, through changes to behaviour, adjusts the image received by the observer. Ignoring the gown, then, would be to ignore the most important part of the story. What is not necessarily made explicit here is any sort of rejection of the Foucauldian view, rather what can be gained is a continuation. Nor is the Foucauldian view criticised by those perspectives of mundane technology, performance-based construction of individual identity, or articulation of bodies noted previously. Rather, these views extend the arguments of Foucault, adding the insights of \textit{Discipline and Punish} to the more epistemologically oriented \textit{Birth of the Clinic}.

Sandrine Thérèse and Brian Martin emphasise that a distinction exists between rites of


passage and degradation rituals. Rites of passage, under their criteria, transform or incorporate individuals into an esteemed social category. On the contrary, degradation rituals reduce individuals to a less desirable status or expel individuals from social structures entirely.\textsuperscript{112} The latter of these processes are stigmatising and result in feelings of shame and humiliation.\textsuperscript{113} Where the substitution of clothing for uniform involves placement within the medical gown, the suggestion of a rite of passage becomes void. As a consequence, the suggestion of rite of passage within the clinic is rendered meaningless. Garfinkel notes that degradation ceremonies or degradation rituals are instances in which the public identities of actors are lowered in local schemes of social types.\textsuperscript{114} To move from individual to “patient” is to replace the singular with the plural. In light of Garfinkel’s definition, this loss of individual identification aligns more closely to degradation than to rites of passage; individuals are not dehumanised to demonstrate their capacity (as would potentially be the case for a rite of passage) but to demonstrate the non-necessity of it for the task at hand. Put differently, the body is not forced into action for processes of social elevation; it is taken out of the hands of individuals who were deemed incapable of treating it themselves. Nonetheless, an essential element of the hospital gown is its temporality; it is a ritual with a defined beginning and end point that partakes in an externally defined purpose. In other words, the hospital gown is a costume that allows for role-play.

The relevance of Foucauldian discipline and degradation rituals to the hospital gown is made apparent when we compare these features to current discussions from the field of nursing, which emphasises the loss of dignity in patients.

\textsuperscript{113} Ibid., 97.
1.3.3. Breeding Horses for Courses

To put a crude issue crudely, the patient-worn, back-tying hospital gown, whether by intention or by coincidence, places the wearer’s buttocks on display. The commonality of this experience for the medical patient is made apparent through representations of patients in pop culture. In the film *Something’s Gotta Give*, we see actor Jack Nicholson amble feebly down a hospital corridor, the second tie on his back tying gown left untied due to its own redundancy, exposing the full posterior of the actor and emphasising the character’s humiliation.\(^{115}\) In the cultural-reference-cornucopia that is *The Simpsons*, we see character Homer Simpson humiliating himself in a backless patient gown in two instances, first in a reference to the escape of Chief Bromden from *One Flew Over the Cuckoo’s Nest*, Simpson is shown from behind, running into a landscape of hills with his buttocks exposed before disappearing from his fate on board a handcar - the ridiculous becoming only more ridiculous. In the second instance we have Homer Simpson explain against a backdrop of gamblers and drunkards: “I’m not worthy to live among civilised people”, Simpson states, before a Marilyn-Monroe-style gust of wind exposes what little was left unexposed of his behind.\(^{116}\) In the 1985 comedy *Fletch*, the protagonist’s behind does not even need to be shown for the audience to understand what is taking place. When the doctor asks Chevy Chase’s character to bend over, it is immediately apparent what will be exposed.\(^{117}\) What is also worth noting is that in each case, the individual to be mocked or sympathised with is male. The humiliation of men in dresses, even when these dresses are standard issue medical garb, is not lost in lowest common denominator comedy.

The backless gown is strongly tied to both the image of the patient and the experience of patient life. The association of patients with patient gowns has been one of increasing concern


within the field of nursing. Issues of patient privacy and patient dignity have focused on the
gown as one of the most significant banes to treatment reform. Investigating sociological
evaluations of clinical practice alongside nursing considerations of patient care demonstrates
a stark difference in concerns. This difference can be used as an explanatory device for the
slow development of change over a noted and criticised medical tool. Where sociological
exploration describes the donning of patient gowns as an unavoidable step in the process of
medical care, nursing describes the patient gown and its associated loss of dignity as an issue
to be avoided.

Concerns from the field of nursing arrive at the patient body from a different direction to that
of Foucauldian discipline and Jewson’s patient. Emphasis is not placed on the method of
detachment of patient from patient body, but the opposite - the prevention of such
dehumanisation. Issues highlighted within the field of nursing can be categorised into two
parts and these will be explored as discrete issues. These are patient privacy and dignity, and
patient distancing, dehumanisation, and disembodiment. While these interests focus on
patients rather than nurses, there are benefits in appreciating patient conditions for nursing
staff. Professors of nursing, Kenneth Walsh and Inge Kowanko note that “the benefits of
better maintenance of patient dignity are likely to include reduction in patient stress and
greater confidence in health services and satisfaction with health care, and could flow on to
to better nursing care, reduced length of hospital stay and enhanced patient outcomes.”

1.3.4. Privacy and Maintenance of Patient Dignity

The state of patient privacy and dignity is thrown into question when utilising back-tying
patient gowns. Milika Matiti and G.M Trorey, scholars of health and social care, remind us
that the maintenance of “patient dignity is of paramount importance”, while the Amsterdam
declaration on the promotion of patient rights in Europe demonstrates an increased awareness

\footnote{Walsh and Kowanko, “Perceptions of Dignity”, 143.}
and emphasis on the maintenance of dignity as central to patient rights. Under considerations of privacy and patient dignity, two complementary issues have been raised: the open back of the gown and the patient’s ability to control exposure of their bodies, and the length and dress-like appearance of the gown.

Discussions of exposure and visibility form the greatest component of existing discussion on patient dignity within the field of nursing. Walsh and Kowanko provide both patient and nurse accounts of dignity and exposure to highlight issues of privacy. The division here exists between patient self-perception and patients’ rights to avoid the gaze of others. Nurse “S2” is quoted explaining that “when they’ve got a hospital gown on and they’re not covered up at the back and often the patients are unaware that they are showing their whole rear view to anybody who comes up behind them … when people say it doesn’t bother them, it might bother other people in the ward.”

Issues of patient exposure extend beyond the patients themselves. Social expectations of propriety as well as social notions of shame are compromised by the actions of others. Exposure here may be in conflict with the moral codes of various individuals as well. In contrast to nurse S2, Patient “Pt3” calls attention to the subjection of the gaze of others, stating “you’re in a, one of those OP gowns … open right down the back. They don’t bother to do it up … and you say to them well look cover me up, I don’t want to go out like this … you’re taken out across the corridor to the bathroom in front of visitors, maintenance people, cleaners, doctors and everybody walking around … showing everything you’ve got to the world.”

Sociologist Deborah Lupton argues that the subjection of patients to medical staff forms part of the transaction of care and legitimisation of illness, and that such subjection allows the

119 Matiti and Trorey, “Patients’ Expectations”, 2709.
120 Walsh and Kowanko, “Perceptions of Dignity”, 145.
121 Ibid., 147.
patient to feel that they are being taken care of. This is summarised by Lupton as the “sick role”. Similarly, Jewson explains that “perception of role refers, in part, to the view the individual has of himself ‘as patient.’ This includes, as well, his interrelationship with others in their respective roles. Perception of role is formed in great degree from previous personal experience and orientation to illness.”

The open nature of the patient gown can arguably be linked to medical access and observation, formation of patient-doctor relationships, or establishment of illness. What is made clear by Pt3’s account is that there is no safeguard preventing the observation of other parties. In this way, the gown betrays the condition of the sick role, and instead becomes an instrument of humiliation.

Gaze here should not be limited to the patient gown. Patient bodies are also exposed to medical students as teaching tools. Schuster notes “privacy always entails some form of distancing. The distancing may assume various forms and may be psychological and/or physical. However, all distancing activities are not necessarily termed privacy.” What appears to be the case from nursing reports is that there is the danger of taking on all the most troubling elements of distancing when attempting to provide patients with a sense of privacy and preservation of dignity. Distancing in the extreme can result in a sense of disembodiment and dehumanisation.

1.3.5. **Dehumanisation, Disembodiment, and Distancing**

Distancing of patients from patient bodies can arguably be cited as a means of protecting patient health, in both physical and mental respects, from the trauma of health care and illness. Sociologist of health and medicine, David Mechanic describes a functionalist

---

123 Ibid., 114.
perspective of illness and treatment in which patients as consumers attempt to purchase the access to health with varying definitions of health defined by the consumer.\(^\text{126}\) What is described by Mechanic is complicated by issues of patient comprehension and patient consent. Mechanic emphasises a balance between patient needs and physician responsibility: physicians must “judge the patient’s wishes, his psychological state and capacities, and the contingencies of the situation, and to relate to the patient in light of these considerations.”\(^\text{127}\) Lupton interprets this as the suggestion that patients “have a psychological need to leave decision making to the doctor in order to absolve themselves from any responsibility for the management of their illness.”\(^\text{128}\) The impetus for such relinquishment is, under such a perspective, a patient sense of inability to take charge of their own bodies after becoming sick. To Lupton, however, such explanations are limiting to both patients and patient care staff as they reduce their interactions to two-dimensional skits.\(^\text{129}\) In any case, practices which distance patients from patient bodies are potentially detrimental to patient comfort and mental health. Distancing may be established with intentions of adding to patient privacy, but in practice they have been detrimental to patient dignity. Disconnecting patient bodies from patient identities has made the process of bodily gaze a component of clinical care, with significant emotional consequences for patients. Processes such as these also carry a propensity to dehumanise patients and to emphasise power differentials between patients and medical staff.

There are a range of practices that allow for the distancing of bodies from the individuals who otherwise inhabit them. For Hirschauer, these include processes of “dislodgement” which are similar to Goffman-like processes of role distance: patients are separated from individuals in order to ready them for medical procedures.\(^\text{130}\) This takes place through a process of


\(^{127}\) Ibid., 42.


\(^{129}\) Ibid., 115.

\(^{130}\) Hirschauer, “The Manufacture of Bodies”, 287, 280.
“handling and commenting” which places the patient body at the centre of examination and the patient’s identity at the periphery.\textsuperscript{131} Narrowing the visual field of the body and dividing this field into regions disembodies patients further.\textsuperscript{132} In this way, the body is no longer even a body, but instead a topographical map of illness and treatment. This is not solely for the benefit or detriment of the patient. Hirschauer continues: “Bodies are partially or completely distanced from the persons and their free disposals of themselves, so that patient and surgeon both lose autonomy and become dependent in various ways.”\textsuperscript{133} For Walsh and Kowanko, describing disembodiment in such terms is negligent and the threat of damage to patient identity or dignity is too great to be gambled with. They use the account of nurse “S1” to argue that the broader system and culture of the clinical setting is one in which individuality is compromised. S1 explains:

It is the dehumanising of people when they come into the hospital. They become objects, if you like, you know. From what I’ve seen, the surgeon sees the disease or process of the disease or whatever, not the whole person, so to speak. So it seems to me that’s sort of robbing people of their dignity … you become a number in the system and that’s a major loss of dignity … nurses are guilty of it too. It’s like they’re a lump in the bed.\textsuperscript{134}

What takes place here is close to descriptions of punishment practices outlined by Foucault. Nonetheless, it is troublesome to draw similarity between patient care and punishment. Foucault explains: “once one defined a practical experiment carried out on the patient himself, one insisted on the need to relate particular knowledge to an encyclopaedic whole.”\textsuperscript{135} Individuals are replaced with texts or artefacts, and in effecting such a transformation, individuals are homogenised and made commensurable to others of a similar type. This allows patients and their condition to be knowable and, as such, treatable. To add the concerns put forward by nursing, what is emphasised by such an account is not a failure

\begin{itemize}
\item \textsuperscript{131} Ibid., 287.
\item \textsuperscript{132} Ibid., 289.
\item \textsuperscript{133} Ibid., 289-290
\item \textsuperscript{134} Walsh and Kowanko, “Perceptions of Dignity”, 146.
\item \textsuperscript{135} Foucault, \textit{The Birth of the Clinic}, 71.
\end{itemize}
on the part of medical staff to recognise patient needs, but a failure in the system employed to address such needs.

What is made most apparent from a consideration of existing nursing literature is that while issues relating to the gown are readily identified as patient issues, solutions to such issues that directly address the patient gown are either left unmentioned or not made at all. Rather, remedies for the loss of dignity associated with patient gowns in nursing literature focus on actions beyond alteration of the patient gown, such as ensuring nurses listen to patient concerns and encouraging physicians to act similarly. In this way, the observing position granted by the gown is not compromised.

1.4. The Man-Machine

The Social Construction of Technology and a Place for the User

While I ground myself and this thesis in a tradition of History and Philosophy of Science, a discussion of artefacts and technologies could not be made without reference to Science and Technology Studies. What differentiates the Social Construction of Technology (hereafter, SCOT) from the Sociology of Science, or the Sociology of Technology, that preceded it, is that SCOT recognises and emphasises the development of technology in a larger setting, a setting that includes systems, actors, networks, interpretive flexibility, closure, and stabilisation. As such, the relationship between technology and users of technology is one that can be described as a reversible reaction: a relationship in which reactants produce the products of their own reaction.

Under SCOT, technologies are flexibly interpreted, both by social groups as well as in their own design. This variation in interpretation is capable of influencing the technology itself - it is, in part, a factor in what pushes technologies in particular developmental directions. Wiebe Bijker, Trevor Pinch, and Thomas P. Hughes, describing Michel Callon's study of technology

as a means of social analysis, summarise the SCOT approach in analogy, explaining:

A new actor world and the technology it sustains are not, as has often been said of invention, a new combination of old entities or components. One cannot simply shop in an imaginary technology-component supermarket and then assemble a combination. The actors, whether consumers, fuel cells, or automobile manufacturers (...) must have their attributes defined for them, or translated, so that they can play their assigned roles in the scenario conceived of by the actor-world designer.137

Similarly, Nelly Oudshoorn and Trevor Pinch remind us of the flexibility in use of a technology, arguing that “there may be one dominant use of a technology, or a prescribed use, or a use that confirms the manufacturer’s warranty, but there is no one essential use that can be deduced from the artefact itself.”138

The breadth of the network that influences and is influenced by technology is emphasised by Hughes. These large-scale networks consist of a variety of artefacts, actors and processes, which are simultaneously mutually inclusive and exclusive. The characteristics of the different components are in large part, determined by the system in which they are developed, by what Hughes refers to as “system builders.”139 In discussing system builders, Hughes describes a select group: “professors teaching the courses may be regular consultants of utilities and electrical manufacturing firms; the alumni of the engineering schools may have become engineers and managers in the firms; and managers and engineers from the firm may sit on the governing boards of the engineering schools.”140 While Hughes directs his focus to high-end mediators of technological reception, this thesis stresses that mediators of

137 Ibid., 8.
140 Ibid.
technology are not limited to particular kinds of agents but to any agents that interact with the technology.

Hugh Mackay et al argue similarly, claiming: “designers configure users, but designers in turn, are configured by both users and their own organisations.” What Mackay et al highlight here is that to limit an evaluation of the shaping of technology to a specific set of users would be to ignore a significant component of the social text of that technology.

Nevertheless, for social interests and values to shape the success of one form of bicycle, or automobile, or any other designed artefact over any other, there must first be some form of bicycle or automobile to be made the object of social interests, even if that artefact is only understood to be a bicycle or automobile with the clear vision of hindsight. If the bicycle exists only as an engenderment of social interests, then there must still be a process of design and creation. While Kline and Pinch, in their study of the social construction of the automobile in the rural United States, argue for an analysis that “shifts the field’s traditional focus from the ‘producers’ of technology (e.g., inventors, engineers, and manufacturers) to the ‘users’ of technology (e.g., labourers, factory owners, home workers, and consumers),” the argument that I will put forward in this chapter is that an approach that focuses precisely on such producers of technology may be fruitful in gathering an understanding of the extent of influence social groups have in design processes. Callon characterises early approaches in accounts of technological innovation as following a linear process of ideas through to commercialisation, where ideas and commercialisation are understood as discrete events. Rather than take such an approach, an argument is made here for investigating industrial designers as a unique social group, distinct in its interests and influence from both inventors and users. Understanding how designers approach their work should contribute to

understanding the role of social groups on technologies before the point of reconfiguration and definition of a technology. Industrial design is presented here as an example of a site in which ideas and commercialisation, or invention and innovation, exist as reversible reactions. This will be elaborated upon further in chapter three where industrial design and industrial designers will both be considered in relation to the development of industrial technologies generally, and in the development of the patient gown specifically.

Within the sociology of scientific knowledge, attention has been given not only to the reception of scientific ideas but also to the process of development of those scientific ideas. Here, the interests and considerations made by the scientist are noted as a process worthy of attention and evaluation. Latour’s *An Anthropologist Visits the Laboratory* and *Science in Action* both emphasise that there is something to be understood about the broader development of science as a discipline by looking at science at the level of the production line. Returning to the SCOT model, for social interests to shape the design or success of artefacts, those artefacts must first exist in some form. Science and technology studies have demonstrated that the breadth of relevant social factors in the development of a given technology can be vast. Nonetheless, industrial design works within a much narrower framework, shaping its products according to specific ideas, values, and principles. These frameworks, alongside social reception and reconstruction of technology, play an important role in the existence of the artefact. What might be needed at this point is for the anthropologist to enter the industrial design workshop.

Before embarking on an evaluation of industrial design and its potential contribution to studies of technological artefacts, methods employed in the collection of empirical data, as well as the findings of this data, will be presented. In doing so, nurse and physician perspectives on the patient gown and the perceived function of the gown in the broader context of the clinic will be introduced. This data forms the foundation for the arguments presented in the chapters that follow.
To reiterate what has been proposed above, the breadth of this literature review is the consequence of the embeddedness of mundane artefacts in vastly different spheres of our daily life, each best understood by differing literatures, but all converging in a single artefact. Beginning with an overview of performativity, what has been proposed is the means by which mundane artefacts, and the patient gown more specifically, are employed in the building of individuals. Pairing performativity with discipline provides some explanation for how such individual building takes place, and its potential purpose within the clinic. Adding to this more traditional HPS and STS concerns of social construction of technology provides some explanation for the concerns voiced in existing literature on the patient gown; namely its potential to decrease patient dignity. Understanding the hospital gown with this background now provides us with a very different kind of object; one that builds a kind of individual for a system of health care requiring standardised bodies.
Chapter Two

Methods and Findings

In the 1953 Warner Bros short animation Duck Amuck we find a seven-minute crash-course on role ascription, courtesy of Daffy Duck. The basic plot of the animation is as follows: the character Daffy is pestered by an unseen animator who constantly changes Daffy’s appearance and location. With each change in scenery and costume, Daffy is obliged to play a new kind of character role, from a musketeer, to a farmer, to a cowboy, and more. What is suggested by Daffy’s reaction to costume and scene change is that our locations and uniforms can stand in for broader social expectation and script. As the character tiredly explains to his unseen animator, and, consequently, to the audience is that these changes in behaviour aren’t necessarily forced actions, but rather the product of a general sense of propriety. Daffy reminds, “buster, it may come as a complete surprise to you to find that this is an animated cartoon, and that in animated cartoons they have scenery”.

It is not by coincidence that the star character of Duck Amuck is Daffy. The dabbling duck is headstrong to the point of unruliness. Unlike his sometimes-friend, sometimes-rival Bugs Bunny, it is not insouciance that drives his interactions with other cartoon characters, but his narcissism and self-interestedness. The lesson to be gained from Duck Amuck is that our capacity to recognise and fulfil social roles, using markers such as location or costume, is not an indication of weak will or direct bullying, rather, it is the consequence of more pervasive and subtle social values.

Nevertheless, Duck Amuck presents a second, concurrent lesson to that of role ascription – one on the consequences of such ascription. Despite having extolled the

importance of recognising social roles and convention, the expectation that individuals can set aside their own interests can take its toll on individual sense of self and dignity. After five character changes, Daffy reaches his limit, exclaiming “I’ve never been so humiliated in all my life!”

Empirical evidence gathered from clinical staff and patients present a similar narrative of costume and setting mediating individuals’ behaviour, resulting, in most instances in similar feelings of humiliation. Physicians, patients, nurses, and linen services across the public health network of NSW, and across wards within that network, were contacted for the collection of data on the patient gown as an artefact, as a tool, and the experience of dressing in, or dressing others in, patient gowns.

In this chapter I will present data collected from these interviews and questionnaires, briefly outline the methods used to collect this data, and draw out key themes from participant responses. These responses and findings will be set against the notions of performativity and discipline introduced in the review of literature in order to provide a potential explanatory basis for the role and continued use of the gown within the clinic. Data was collected between March 2013 and August 2014 with questionnaires used in a small number of circumstances when interviews were not possible. All interviews and questionnaires were conducted in a manner upholding NSW Health Board of Ethics requirements for the protection of participant identity and minimisation of participant discomfort or risk to employment position.

---

145 Ibid.

It is also relevant to note that ‘running amok’, in Indonesian and Malaysian societies, has long been explained as an event set off by severe public embarrassment, in which individuals behave violently in an attempt to regain a former public image of self. Daffy’s frustration and violence come from the compromising of his role as a cartoon character. Extended to the clinic, the effect of loss of sense of self-identity has already been discussed at length.

2.1. Here I am, the Method Man

Methods

The aim of the study was to interview physicians, nurses, patients, linen services, and other professional staff in the clinical setting to explore such participants’ understandings of the purpose of the patient gown, as well as to gauge the personal experiences of these participants with the artefact.

The study took place between March of 2013 and December of 2014 across the entirety of the NSW public hospital system with the lone exclusion of the Far West Local Health District of the network. The size of the state of NSW and the geographical breadth of its public hospital network cannot be over emphasised. The Far West Local Health District (hereafter LHD) is, in spatial terms, the largest in the state, accounting for approximately 40% of the overall state network. In contrast, the LHD is the smallest district in the state in relation to its population, with individuals in this region accounting for 0.4% of the overall population of NSW. The majority of physicians and nurses working in the LHD hold joint appointments in the LHD and other districts in the state. Many of these physicians and nurses are fly-in staff. Individuals who were contacted for this study who held such dual appointments are recorded under the clinic at which they spend the larger component of their time. The LHD region borders three states with many of its larger towns residing on these border regions. Many patients under the care of the LHD receive their treatment in hospitals in the neighbouring states of South Australia, Victoria, or the North Territory. Including the region in this study, then, complicates the boundary drawn around hospitals within the NSW network only.

Participation with professional staff (that is physicians, nurses, linen services, and general staff) was initiated by telephone and/or email contact with departmental managers who then disseminated my contact details in staff meetings. In some instances, when approved by departmental managers, flyers advertising participation were posted in common areas such as
break rooms and staff cafeterias.

Supplementary services contributing to the health network of NSW, and in particular those that provide gowns to clinics, were contacted for the collection of data on the patient gown. NSW HealthShare is a state-wide network of services that contribute to the functioning of the public hospital system. This network includes food services, patient transport, and linen services among other facilities. Linen services connected to the public health network of NSW were contacted and asked to comment on types of gowns available, processes of repairing, maintaining, sterilising, and ordering gowns, the manufacture of gowns, the relevant Australian Standard code for patient linens, and the method of transportation of gowns from linen service to hospital. All interviews with linen services took place over the phone, excluding two plants, which requested contact by email, and of which only one responded to questions. The regional and metropolitan health network of NSW has eight linen service plants, all of which were contacted and of which six elected to participate. Plant managers were consulted for interviews. In all but one of these plants, managers expressed uncertainty on the particular Australian standard for patient linens (or formal plant policy for patient gown requirements), describing instead a system of verbal and practical training for maintenance of gowns. The remaining plant sited the standard AS4126, a standard concerned with metalworkers rather than patients or clinical workers. For all interviewed plants, the site of manufacture of gowns and the procedure for obtaining new, unused gowns was unknown. Many plant managers described ordering gowns from other plants when demand for gowns exceeded supply, rather than obtaining new gowns. All interviewed plants confirmed that patient gowns were standard across the NSW health network and that the standard form of gown was unisex with a posterior opening and cloth ties. Despite describing a system in which gowns are produced at an unknown source and maintained by a non-standardised method, such responses further emphasise the gown as a mundane artefact rendered invisible by ubiquity. Beyond this, discussions with linen services did not contribute to further
understanding of the function of the gown or its role in patient-physician relationships, and will not be further investigated.

Participation with patients was not initiated within the clinic. Studies from the field of nursing have repeatedly emphasised the effect of patient interviewing, and, in particular, patient interviewing within the clinic, as degrading and dehumanising experiences for patient participants. In an attempt to prevent the perpetuation of such feeling among patients, individuals who had been discharged in the three-month period preceding their interviews were contact for participation. Such individuals were found by flyers posted in outpatient clinics, medical centres, and by word of mouth.

All participants (both patients and clinical staff) were over 18 years of age, as well as of mixed racial, cultural, geographic, and socioeconomic backgrounds. Participants work in or were admitted within a broad cross section of wards within the clinic. An attempt was made here to collect a general view of the artefact within the clinic, rather than to gather information on a particular ward’s use of the patient gown, or the way individuals of a specific social, racial, or cultural class, or of a particular geographic location within the state, consider the artefact.

All participants are anonymous, and have been assigned single initial markers or numbers. These numbers and letters were randomly assigned and do not reflect anything of the

---

147 Walsh and Kowanko, for example, describe that patients feel their dignity is compromised when they are observed by others in situations where they are not in control. They provide a patient account which describes, “it was the most horrible feeling in my life, having seven or eight strangers that I didn’t know … I was okay with my doctor and the nurses, I knew them but not eight total … and kids that were younger than me and I didn’t like that”.

The authors also describe that patients feel they are not seen as people when they are used as subjects, again quoting a patient who states, “I don’t think anyone would really like to be used as an example”. Walsh, K., & Kowanko, I. (2002). Nurses’ and Patients’ Perceptions of Dignity. *International Journal of Nursing Practice, 8*(3), 143–151. http://doi.org/10.1046/j.1440-172X.2002.00355.x p. 148

148 Excepting limited instances in which individuals requested the use of their favourite or lucky number.
identity of the participants, for example, titles appear as “Dr A” or “Patient 99”.

Interviews were constructed around a core set of questions, which were then rearranged, expanded, supplemented, or abandoned in keeping with the pace and direction set by the interview participant. What was intended by this method was to allow participants to emphasise what they felt were the important issues to be addressed, and so gain perspective on the gown as the gown appears to individual participants and groups of participants. In doing so, a grounded theory approach was taken in the collection of data. Arguments and themes presented henceforth were derived from collected data, rather than formulated prior to data collection. Additionally, this initial set of data was used to form the basis for further data collection in an ongoing manner.149

A small percentage of participants expressed a preference for questionnaires over audio-recorded interviews, citing concerns of privacy. In such instances, questionnaires were disseminated. A sample questionnaire can be found in Appendix 1. Questions were constructed to avoid leading participants in any particular direction in order to prevent responses from demonstrating bias. A background to the research was included in order to allow participants to gain informed consent for their participation. Nonetheless, the background does not contain any specific hypothesis or directions of research, again in order to prevent bias. In some instances it was possible to ask patients follow up questions after initial interviews.

Questions and interview methods varied between participants. Physicians and nurses were asked similar questions and provided with identical questionnaires. Interviews were favoured over questionnaires in this thesis for the spontaneity of responses they encouraged and for the potential to ask supplementary questions. Interviews allow for more in-depth discussion with

participants and also offer up the opportunity to ask participants to clarify their explanations or to ask supplementary questions.

All interviews and questionnaires were conducted in a manner upholding NSW Health Board of Ethics requirements for the protection of participant identity and minimisation of participant discomfort or risk to employment position. The following steps were taken to uphold state requirements for patient anonymity and maintenance of emotional comfort during the collection of data; interviews were held in one-on-one interactions with participants in locations selected by the participant. Interviews were recorded on cassette or digital recording device and transcribed shortly after interview. Transcripts were kept in an encrypted computer drive – all as per state requirements.

The project was undertaken using what could generally be considered to be a qualitative method. Nonetheless, it would also be fair to say that the project unfolded without any formal training in what a strong qualitative approach would entail. Here, I will evaluate the methods taken in the collection of research data, comparing them to approaches born out of qualitative research. Additionally, I will describe instances in which the approach taken aligns strongly with a qualitative approach, as well as instances in which the approach taken was somewhat lacking. In doing so, I hope to both highlight the merits of the work and avenues for further development.

A common hurdle for new students studying microscopy is learning how to see. Before such students experience the gestalt switch between relevant blue blob and irrelevant blue blob, what appears under the lens is somewhat meaningless. The frequent solution to this problem


151 And accurate.
is to present students with a clear description of what they might expect to see under the lens, priming the eye for such a switch. Glasser and Strauss, in their text on the development of and approach to grounded research define such research as a general method for sociological study that makes use of comparative analysis in the development or identification of research themes.\footnote{Glaser, B. G., & Strauss, A. L. (2009). *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Transaction Publishers. p. 2-3} The authors contrast such an approach to studies that use data to confirm or disprove a priori assumption. Using data to identify, rather than confirm themes have a number of benefits for the research at hand: work conducted in this way more accurately represents the interests of the participant than the interests of the researcher. Additionally, such a method ensures that researchers do not create the phenomena by first conceiving of it.

In a similar vein to grounded theory, Heritage makes a distinction between natural attitudes and phenomenological approaches. ‘Natural attitudes’, an idea that Heritage attributes to 19th century philosopher Edmund Husserl, encompass the ways in which we recognise, interpret and act upon the work in a routine, mundane manner. These are contrasted against notions such as Cartesian doubt in which it is our perception of our own experiences of the world that are of analytic importance.\footnote{Heritage John (1984), Chapter 3: “The Phenomenological Input”, in *Garfinkel and Ethnomethodology* Cambridge: Polity Press. p.41} The phenomenological, says Heritage, sits somewhere between these two approaches: taking such an approach allows us to investigate the interactions we take with what we perceive to be the real world without questioning the existence of that world. In a sense, the phenomenological defines the unfolding of an event or idea by the presence of its symptoms, rather than the isolation of its causative agent.

In practice, approaching participant data without any existing assumptions can be difficult. Beyond practical concerns of formulating clear research plans for ethics approval, such projects are often undergirded by pilot studies, explorations of existing literature, and other such research. In preparing for the project described above, I first explored existing literature
on patient experiences in the clinic, patient degradation and sense of self-worth, studies of mundane artefacts, performance of identity, and discipline. These all contributed to the idea that I wanted to look into the effect of placing patients in uniforms (here the patient gown) in the clinic. What had not yet been determined was what those individuals who interact with the artefact would define as its use, nor what the relationship between this action and the general operation of the clinic would be. How closely this falls to a grounded or phenomenological approach is difficult to say; the project could easily be considered grounded in its findings, or criticised as built on a priori assumptions – the decision had already been made to investigate gowns, and the notion had already been formed that these objects would likely be associated with a disciplinary system. Nonetheless, what that role was determined to be was born of participant feedback. Several unexpected themes were built out of participant feedback and these each appear in the final project. These include region-specific reactions to the patient gown, and the invisibility of patients' religious beliefs in the practices of the clinic. It is hoped, then, that the project would, at worst, be described as taking its initial hypothesis from existing studies, rather than a priori, and grounded in data in its examination of aspects of the clinic.

In Geertz’s examination of the importance of thick description, the author places emphasis on gestures and practices as an important component of understanding a given site. In addition, Bryman, describing the value of a thick approach to an understanding of social processes explains that “an approach to the study of the social world which seeks to describe and analyse the culture and behaviour of humans and groups from the point of view of those being studied” prevents the production of a sociological study that does little more than to tell us what the suspicions of its researchers are. Further, says Bryman, we should ask more of

---

154 These themes will be returned to in the section on avenues for further research, close to the conclusion of the thesis.
“the subject’s own interpretation of his/her action”. In discussing ideas such as identity performance and role ascription in the development of patients, it would be redundant to the point of misleading to ignore the ways in which individuals hold themselves and their interactions with other people and with things in the clinic. Care was taken to make note of the way patients and physicians used physical gestures when describing clinical experiences and the ways in which such gestures changed over the course of interviews in relation to topics of discussion. Where possible, these have been included in the write up of research findings, often in footnotes.

Hutchby and Wooffitt have both discussed the possible benefits of taking a conversation analysis, or discourse analysis approach. Talking involves more than words, extending further to include gestures, tone, insinuation, and expression. Further, talking can be used to identify one’s background, interests, or education, or to ally oneself with a particular group. Hutchby and Wooffitt describe conversation analysis as a means of understanding and viewing the social world and actions that take place in that world.

Nevertheless, I would argue, in the case of this particular body of work, that a conversation analysis approach would be detrimental to the portrayal of participants. Feelings of embarrassment, exposure, and shame are highly personal feelings. Providing a text that is easy to read, rather than dense in the details of a conversation analysis approach, allow the reader to experience the feelings of the participants presented, even if their sense of what it is to be embarrassed differs from that of the participant at hand.

---

157 ibid. p. 52
Perks and Thomson introduce historical narratives as ones that emphasise traditional positions of power. Against such positions, the authors present the idea of a multi-sided approach. These, in turn, provide multiple platforms for a multitude of voices, emphasising the faceted nature of history. In the collection of data for this project, special effort was taken to gain data from a broad cross section of sites in relation to wards, clinics, and geography. As already noted and emphasised, the state in which this state-wide study was undertaken is nothing short of enormous. Multiple cultural groups, racial groups, and socio-economic groups contribute to the topography of the state. Such an approach was taken in order to place emphasis on overarching social reactions to the patient gown, rather than upon location, or community specific ideas or values. Nevertheless, variations between professional groups, social groups, and religious groups did exist and were made apparent in data collection.

Two broad themes can be drawn out of the data collected from physicians, nurses, and patients. Each theme will be brought into conversation with topics and concepts introduced in the review of literature. The first of these is the absence of patient interests in descriptions of the function of the patient gown provided by medical staff. This theme will be discussed alongside studies of patient dignity and studies of discipline, in particular the formation of docile bodies under Foucault, and the experience of bodies in asylums under Goffman. The second theme presents the conflict between formal training and practice in the administration of patient gowns. This will be considered alongside an evaluation of nurses’ roles as further demonstration of the influence of invisible technologies and practices within the clinic.

---

2.2. **Short Skirt/Long Jacket**

The role of the gown in the clinic and on patient bodies

When asked to describe the function performed by the patient gown, physicians and nurses describe practical roles. Most often, these emphasise that patient gowns, as will be shown in the following chapter to be similarly emphasised within industrial design, grant access to patient bodies by virtue of their material construction, allowing for diagnosis, washing, and other actions dealt upon patient bodies within the clinic. Patients, their interests, their resistance, or their compliance were not mentioned in such descriptions within the data set collected for this thesis. When asked to describe patient reactions to the process of being donned in patient gowns, physicians and nurses offer reworked descriptions of the gown’s function. Where initial descriptions insisted the gown performed a practical role, reconstructed descriptions given by interviewees assigned the patient gown a more performative role. Here the gown still provides access to patient bodies, but does so by internalisation of patient and physician roles initiated by interaction with an exposing garment, rather than by the simple ease of its material structure.

Dr Q, a departmental specialist in the South Western Sydney district of the NSW public hospital network, and Dr L, a registrar with the South Eastern Sydney district exemplify the range of physician responses on the gown’s function and patient reactions to the artefact. While these responses demonstrate distinctly different attitudes towards the justness of various clinical practices, they provide similar descriptions of what such practices entail as well as what they hold to be the general requirements of a well-functioning clinic and the relationship between a functioning clinic and the employment of the patient gown.

Dr Q was asked to describe the purpose of the patient gown. The response given here described the gown as a tool of access to patient bodies, facilitated by the material structure of the artefact. Dr Q explains:
The gown is probably there for ease of access for nursing staff for washing. It’s slightly easier
to expose the patient, but there are not many other physical uses.

Here the gown, by way of its posterior openings, grants medical personnel access to patient bodies. Asked to comment on patient reactions to donning gowns, Dr Q provided a reworked definition of the function of the gown, one that calls on the gown for the mediation of relationships between various actors within the clinic. This introduces a second means of gown-mediated access to patient bodies, an emotional shift allowing for the handing over of bodies to physicians and nurses. Dr Q continues:

Younger patients are more likely to decline going into a gown. Older patients are more willing to comply with the systems that are in place probably because they know they need it or that it’s not going to change. It’s not necessarily a good thing, I suppose. I find the gown a bit unusual. It’s a smock basically. Why aren’t patients just in pyjamas? The fact that the gowns are so exposed; I don’t understand why these particular gowns are used? It dehumanizes the patients to some degree. It’s probably to do with the fact that their whole back is exposed. I’d hate to wear one. Patients trying to cover their backs is not common: one in 20, or one in ten, maybe ten per cent of patients, possibly. But they don’t often ask the doctors.

Parallels can be drawn between the comments made by Dr Q and accounts of patient dignity provided in chapter one, and in particular, those accounts of loss of patient dignity emphasised by the nursing sphere. Baillie’s study of patient dignity in clinical settings argues that a direct relationship exists between bodily exposure and compromised dignity. Dr Q summarises this relationship within his description of patient reactions to the gown: patients are donned in gowns which expose “their whole back” and this lack of bodily privacy “dehumanises the patients”. Baillie continues that despite the attention paid to the gown by both patients and nurses, both categories accept the gown as a ward norm. Nevertheless,

patients and nurses within Baillie’s study describe body exposure as a discrete event to the donning of patient gowns, considering only the former as a source of compromised dignity, rather than emphasising the gown as intrinsic to this process.\textsuperscript{162} Contrary to Baillie’s division of exposure and the patient gown, Dr Q presents such exposure and donning of gowns as linked events by emphasising that it is the specific exposure of patient posteriors in patient gowns, rather than any other form of garment, such as pyjamas, that causes patient dehumanisation. Dr Q also reinforces the notion that the patient gown exists as a kind of ward norm. For Dr Q, gowns are more than simple tools for access to patient bodies for the facilitation of washing and diagnosis, but are a physical extension of “the systems that are in place” that allow such washing, diagnosis, and treatment to take place.

Dr J, an intern in the Illawara Shoalhaven district, argued similarly to Dr Q, discussing the patient gown as follows:

\begin{quote}
It [the patient gown] doesn’t cover as much as some people would like. I know some people would like to double gown and put one on the back, some people just don’t like the gown; they don’t like the feel of it, they don’t like being in it, but for us it’s easy. No one’s asked me not to be in a gown. I think people tend to accept it, it like, if you go into a hospital, you’re going to be in a hospital gown.
\end{quote}

By Dr J’s account, it is irrelevant to form a distinction between bodily exposure as caused by the structure of the patient gown, and bodily exposure beyond the gown. What Dr J describes is that the dehumanisation caused by the patient gown extends further than bodily exposure. The very experience of donning a patient gown, the tactile qualities of the garment, and the assignment of the garment (as well as the loss of autonomy signified by such an assignment) are also significant causes of decreased patient dignity. What makes this response particularly interesting, however, is the conflict in the physician’s reaction to recognising this loss of patient dignity. While empathetic enough to note the patients are emotionally burdened by the

\textsuperscript{162} Ibid.
action of donning gowns, Dr J also notes that the process makes the tasks of the physician
easier to perform. This is not to suggest that Dr J, or physicians at large are self interested or
cold to the feelings of patients – such an argument would be a gross oversimplification. What
can be seen to be taking place here is a balancing act between the immediate interests and the
long-term interests of the patient. Here, autonomy and patient perception of self are weighed
against the recovery of health.

In addition, Dr M, an intern in the Sydney district, explained her concerns with the gown as
follows:

I think most patients accept it as an uncomfortable requirement of the hospital. I’ve never met
anyone that liked them, but most people seem to accept it, like “um, this is just what I have to
do, I don’t enjoy it but oh well”. The most worrying thing I’ve seen in the gown is when
patients who are not as mentally with it, or even just tired, or whatever, find it hard for
themselves to personally cover themselves when they move or walk around which means that
they’re exposed but they might not be aware of it. Patients who are less with it because for
whatever reason, it’s much easier, I think, for them to be exposed but they’re not aware of it,
and I think that’s the more, that’s the times I’ve been particularly worried about the gown.

Doctors Q, J, and M each describe the gown as emotionally troubling to patients and to those
around patients. Nonetheless, each also describes the gown as a kind of necessary
inconvenience. While each of the above describe patients enacting a negative response to the
experience of being dressed in gowns, and while each lists possible alternatives, none describe
attempts to make use of these alternatives or even to suggest such alternatives to patients. Here
I propose a redefinition of the patient gown: Rather than a tool for the exposure of bodies, the
gown is a tool for the installation of an effective system of healthcare in which the exposure of
patient bodies is a concomitant process. With this change in definition, some explanation is
given to the conflict present in the above physician responses. The problem associated with the
gown in relation to individual sense of self and dignity does not lie within the gown itself but
in a broader network of practices that rely on the patient gown for the construction of a suitable patient. This redefining of the patient gown finds further support in nurses’ comments on the artefact.

Nurses recruited to comment on the function of the patient gown address similar concerns to physicians. However, unlike physicians, the vast majority of nurses did not alter their position on the function of the patient gown after invitation to consider the reaction of patients to the experience of donning gowns. By and large, nurses describe no change to patient behaviour after the donning of the patient gown, also in contrast to the above physician accounts. This contrast is remarkable considering the level of interaction physicians and nurses each have with patients. Interactions between patients and nurses are not only more frequent than those between patients and physicians, they are also more intimate. Nurses, rather than physicians, engage in the personal activities of dressing, bathing, and feeding patients. It would be expected then that nurses, rather than physicians, would note changes in patient behaviour more readily. More interesting still is that physicians note a change in patients at all. Nurses and physicians both describe patients donning gowns before their initial meeting with physicians. The point of reference for physicians describing a change in patient behaviour is difficult to discern. Further investigation into the interactions between patients and medical staff may be called for here; in particular an ethnographic approach may cast some light on the possible differences between patient interactions towards physicians in contrast to nurses. A tentative explanation for physician responses would be that physicians base their claims on their own experiences as patients, or by imagining themselves in the patient role – physicians base their claims on a general sense of empathy.

Nurses who offered reworked descriptions of the patient gown describe the artefact in similar terms as the physicians noted above. Nurses described the gown as a physically and emotionally uncomfortable garment that negatively affects patient self-esteem. In addition, nurses describe the gown as complicating aspects of the administration of healthcare.
Nurse O, a nurse in the central coast district, initially described the function of the gown as a garment that covers patient bodies without interrupting the processes of medical care. Nonetheless, after making this initial statement, Nurse O quickly changes tack and criticises the gown as impeding both the efficient flow of healthcare and the self-perception of patients. Nurse O explains:

It has these large sleeves, which allows IV\textsuperscript{163} fluids to pass through, and they’re open. But they’re also impractical. They do up at the back which is pointless when staff need access to their (the patient’s) chest for things like ECGs or CPR\textsuperscript{164} and since they’re open they’re also cold which makes our job harder because we have to run around finding blankets. There is one thing, though, patients in gowns do submit to hospital routine more readily.

Similarly, Nurse H, from the Sydney district, describes the gown as impractical for the administration of care. In contrast to Nurse O, Nurse H describes the gown as particularly problematic when installing or working around intravenous lines and highly practical for processes such as echocardiograms. Nurse H stated:

It [the gown] gives us easy access to the patient’s body. It’s easier for ECGs and bladder and bowel access but it’s also a pain. It [the gown] doesn’t make things very accessible when there are IV lines, we have to clamp them down before changing the gown, and you can imagine that has to happen quite often.

Contrasting the accounts of nurses O and H raises some questions on the practicality of a uniform garment across starkly different clinical wards. In relation to patient bodies, the uniformity of the gown may allude to the kind of role the gown performs within the clinic. As nurses O and H describe, it is unlikely that this role is practical, as the physical construction of the gown impedes ward practices. Here a return can

\textsuperscript{163} Intravenous.
\textsuperscript{164} Echocardiograms and cardiopulmonary resuscitation.
be made to the central argument of this thesis – that the patient gown functions as a tool for the implementation of a smoothly operating system of healthcare, rather than a tool of bodily exposure. As a prop within a performative network, however, the gown assists in readying patients for clinical routines. By noting that patients in patient gowns submit more readily to hospital routines, Nurse O touches on an aspect of the aetiology of the clinic that is otherwise absent in the collected nursing accounts. Describing patient submission to routine also implies a period of resistance or rejection of such routines. The comment made by Nurse O draws together the notions of discipline and performance, which both have been introduced in the preceding chapter. To summarise and repeat Goffman’s outline of performance and performativity, individuals enact kinds of selves that draw together their own interests and intentions as well as the interests and pressures of the individuals and objects that make up their surrounding environment. In doing so, individuals both inform and are informed by their own performances. When the individual performance of self and the stage on which such performances take place are co-dependent, the movement of an individual from one context or stage to another must undoubtedly cause some kind of upset to self-perception. My suggestion here, on the basis of Nurse O’s remarks on patient submission, is to put the patient gown forward as a prop in the stage of the clinic that is heavily laden with existing expectations, values, and associations for patient roles and patient behaviour. Patient rejection of the patient gown can be seen as the individual refusing to relinquish control over the use of their identities. The patient gown, then, and the individual beyond the gown can be treated as two entirely distinct individuals. In this sense it is not only the case that patients in gowns submit more readily to hospital routines, but also that patients in gowns are precisely the kinds of individuals who submit to hospital routines.

Although Nurse O alone refers specifically to patient submission, a broader set of nurses allude to systems that make such submission possible. A number of nurses
described the gown as a tool of surveillance. An initial description of the function of the gown amongst such nurses remains the same as all other nurses: the gown remains a tool for accessing patient bodies. Rather than noting the problems associated with the gown in the practice of clinical care, nurses in this instance describe the characteristics of the gown that assist in nursing care. Of particular concern here is the task of supervising multiple patients simultaneously.

Nurse G, a nurse in the Sydney district, describes the patient gown as a means of dressing patients without disrupting processes of care. For Nurse G, the gown also has the secondary function of enabling surveillance of patients. Nurse G explains:

The nurses dress patients in ICU, we can put in monitoring leads and access invasive monitoring devices. The patient’s body is covered but in this [the gown] we can still expose them quickly in case of things like cardiac arrest where CPR is warranted. When they [patients] wear clothes they appear well and not sick. The white gowns make them look paler and institutionalised. In the gown there is also easier identification of a patient if they are trying to abscond from the hospital.

It is worth noting here that while Nurse G does not make specific mention to submission, she does note its opposite – deviance. Deviant patients who attempt to abscond can be reined back by the trappings of the patient uniform.

Surprisingly, Nurse T, a nurse in the South Western Sydney district, describes the gown in near identical language to Nurse G. Nurse T describes:

It [the gown] gives us access to patients’ chests and abdomens and also provides them with something to wear. They [patients] complain but, look, you know, it’s not a fashion item. What’s good for us is that they’re [the patients] less likely to abscond in a gown.
As a surveillance tool, the gown performs a similar function across wards. This may account for the use of a standardised gown in light of the concerns raised by nurses H and O. However, to suggest that this accounts for the current appearance of the patient gown is to suggest that surveillance is of paramount importance to patient dignity and patient treatment as well. This line of argument is in keeping with Foucault’s *The Birth of the Clinic*, in which the task of the clinician is described as inherently disciplinary, taking charge of bodies and of illness. This characteristic of the gown might also betray its historical origins, although further investigation is needed here.

Contrary to the suggestions made by doctors Q, J, and M, bodily exposure and impaired patient dignity are described within nursing studies as a consequence of nursing staff negligence, rather than a by-product of patient gowns. Matiti and Trorey argue that nurses ought to be held accountable for exposure of patient bodies in patient gowns. Similarly, Walsh and Kowanko argue for nurse culpability in instances of patient exposure and add that it is the failure of nurses to prevent bodily exposure that results in the relationship between exposure and loss of dignity. Such studies argue that in failing to prevent exposure, patients are made to feel that they are not being treated with respect. Walsh and Kowanko quote a patient given the name Pt3, who explains:

> I’ve been here for a week and I’ve only just found out that if … I attach it [the gown] in such a way it’s not open at the back. But I would like to have my dignity respected by someone saying ‘Listen, Jim, I just do this, if you just do this little tie up here that will hold the whole thing together and you’ve got no dramas’. I would treat that as being respected. I’m not worried about showing my bum around the place but other people may not want to see yours.

---

166 Matiti and Trorey, “Patients’ Expectations”, 2712.
The suggestion here is that gowns only result in the exposure of patient bodies when nurses fail to explain how to best make use of the artefact. Emphasis here is on the open posterior of the gown, not as an opening for exposure, but as a site where nurses must be vigilant and dedicated to patient privacy. Nevertheless, multiple aspects of the gown are described elsewhere both within this thesis and in the literature, including the gown’s length, and the unisex design of the artefact as features which cannot be amended by alteration of the method of donning. As a result, it is difficult to determine how nurses ought to protect patient bodies and dignity without addressing the gown itself as, at least, partially culpable.

In contrast, the responses given by Q, J, and M emphasise that rather than being an artefactual bystander to patient exposure, the patient gown can and ought to be considered as ingrained in the experience of exposure. The contrast between the arguments put forward by nursing studies and patients within such studies, and the physicians above, calls for some explanation. The discrepancy here can be accounted for by considering the responses provided by Dr D, a specialist and departmental head in the Western Sydney district.

An excerpt from the transcript of the interview held with Dr D reads as follows, with interview questions presented here in italicised font:

"When are the patients first placed in patient gowns?"
Dr D: First of all, they’re not. When I do the surgery I always have a gown for such patients. Secondly, if a patient has MRSA\textsuperscript{168}, or any infective [sic] to other patients, then we use the gown.

"Are you describing the patient’s gown or your own protective gown?"
Dr D: What do you mean by “patient’s gown”? The back-tying gown that patients wear. This one (presents picture of relevant gown)
Dr D: That is the patient’s gown.

"Yes, that’s the gown I am interested in, when do patients first get put into one of those gowns?"

\textsuperscript{168} Methicillin resistant \textit{Staphylococcus aureus}: a multidrug resistant pathogenic bacterium.
Dr D: Why do you want to know about that gown? Patients need to wear a gown. Any patient that is admitted is in a gown. There is nothing interesting about that.

Dr D’s initial inability to recognise the patient gown as a worthwhile point of discussion, or his lack of interest in the patient gown as a point of discussion, says much of the role of the gown within the clinic. The gown, as a mundane artefact, is awarded a level of invisibility in the day-to-day processes of the ward. This characteristic of the artefact may be held accountable for the gown’s exclusion from blame in the nursing studies presented above. As described by Dr D, there is nothing interesting about the patient gown; the artefact is both innocuous and ubiquitous. Nonetheless, it is this same innocuousness and ubiquity that allows for the gown’s incorporation into broader clinical structures. In other words, it is precisely because the gown is so uninteresting as an artefact that the gown becomes so interesting as an object of study. Dr D’s failure to consider the gown as a worthwhile discussion topic and the extraction of the patient gown from arguments of responsibility for patient loss of dignity may both stem from the gown’s position as mundane artefact. Rather than innocuous and ubiquitous, the gown can be considered insidious under the veil of its own invisibility. It is difficult to dis-embed mundane technologies from their sociotechnical ensembles.\(^{169}\)

Overlooking the gown here is not presented as an act of laziness or lack of creativity on the part of the above physicians or of the studies presented, but a consequence of the gown’s mundane quality. To single out the gown for discussion, one would first be required to recognise the breadth of the gown’s entanglement with other mundane and less mundane practices, artefacts, and infrastructures. Doing so is not only tedious; it is also difficult to the point of impossibility as it requires the observer to see the invisible.

2.2.1. The Patient Gown as a Disciplinary Tool

While most participants alluded to structures of power and discipline within the clinic, a small set of participants described such structures in more explicit terms. Responses given by Dr L on the topic of the patient gown’s function, and patients’ reactions to donning such gowns appear, on their surface, to be significantly less sympathetic than those of the aforementioned doctors Q, Dr J, and Dr M and nurses H and O. Sympathetic or not, Dr L’s description of the gown’s purpose aligns with the description above. Dr L describes the gown’s function, initially, as part of a timeline of procedures applied to patients. After considering patient reactions, however, Dr L adjusts his description of patient gowns from practical tool to a method of distinguishing patients and individuals primed for the reception of care, from individuals who are incompatible with the reception of care. Dr L describes:

Number one [in a list of the gown’s role within the clinic] would probably be to facilitate a physical examination by the medical team. Number two would be a disposable and easily changeable outer covering for the patient so that no matter what kind of body fluid or stuff gets on to them.

And then:

People who think doctors are evil are less willing to put on gowns because then they have to admit that they’re sick, it’s refusal to conform to what the social construct of what a patient in hospital is supposed to wear, people who don’t believe in medicine, you know? Kids usually stay in whatever clothes they come in because they are more comfortable in those clothes and they feel less frightened in their own clothes. I think adults are a lot more conditioned to expect ‘when we are a patient, we wear a hospital gown’. I mean it’s just a part of the social construct of what a patient looks like. Adults, while being in a gown might make them feel more vulnerable, it also gives them an identity as a sick person or sick patient, and it helps condition them as a sick patient. It’s what makes them a hospital patient. They know that and I think that comforts them.
Rather than focusing on injury to patient identity, the arguments put forward by Dr L are more heavily concerned with the building of patient identities and the discipline of bodies in preparation for receiving of medical care. For Dr L, there is a clear relationship between social images, expectations, and the operation of the clinic as a social network; the patient here is a kind of role or identity and the gown is directly linked to this identity. As L explains, it is the gown that “makes them a hospital patient”.

Dr L is not alone in making such an argument. Patient 6, a maternity ward inpatient in the Northern Sydney Health District describes mundane artefacts and practices within the clinic as the catalyst for transformation from non-patient to patient. Patient 6 recounts:

The labour ward at (the hospital) is really into natural as much as possible. They didn’t make me wear anything, they didn’t even want me to lie down on the bed; they didn’t want me to adopt a patient mentality.

Both Dr L and Patient 6 describe patients as constructed identities rooted in practices and performances that hold social meaning. For Dr L, an individual is incapable of detecting that they are unwell or receiving medical treatment until the appropriate transformation (here, a costume change), takes place. The reason is described as straightforward: an individual who is unwell and ready for medical care is a patient, but an individual does not become a patient until dressed in the appropriate costume. Rejecting the appropriate costume, then, not only demonstrates a rejection of the patient role, but also betrays that an individual is not yet emotionally prepared to receive a healthcare intervention. In addition, an individual who transgresses these expectations by seeking treatment without first adopting the patient costume is a spanner in the machinery of the clinic. Such individuals are so incongruous to the expected order of the clinic for Doctor L that the only explanation to be given is to consider such actors as thoroughly, morally opposed to the clinic in all regards. Dr N, an
intern in the Illawara Shoalhaven district, summarises this argument, explaining: “the main problem (with the patient gown) is patient privacy but when you’re in a hospital patient privacy is compromised anyway so this (the gown) is just a part of that. You trade in your privacy for treatment.”

For Patient 6, the transformation of individuals into patients is a Gestalt switch triggered by bodily actions. Not only is clothing associated with this transformation, but also common practices of the clinic, such as lying on a patient bed. To Patient 6, this patient identity is unnatural; these are constructed identities, rather than the true character of the individual at hand.

In the case of Dr L, a return can be made to the discipline of bodies described in chapter one. What Dr L describes in patients, Foucault has described in the manufacture of soldiers. The suggestion here is not that Dr L is referring directly to Foucault’s text, or that Dr L necessarily has any familiarity with Foucault at all. Instead, what is intended by presenting L alongside Foucault is to demonstrate the similarity of the ideas engendered by two distinct contexts. It is not expected that the processes of the clinic should align with the training of soldiers. Nonetheless, presenting the two settings side-by-side demonstrates that similarities exist and that these can be used in turn to further understand clinical practice.

To repeat and elaborate on what has been introduced in an earlier chapter, Foucault describes the construction of the soldier as follows:

The soldier has become something that can be made; out of a formless clay, an inapt body, the machine required can be constructed; the posture is gradually corrected; a calculated constraint runs slowly through each part of the body, mastering it, making it pliable, ready at all times,
turning silently into the automatism of habit; in short, one has ‘got rid of the peasant’ and given him ‘the air of the soldier’.¹⁷₀

Juxtaposing this argument with that presented by Dr L, bodies are made docile through the introduction of disciplinary acts, which, while highlighted as degrading and dehumanising by nurses, patients, and other physicians, act as rite of passage for receiving medical care. Discipline should not be limited to one definition. While discipline may refer to acts of punishment, disciplining acts can also refer to the training of bodies or the provision of instruction. This second form of discipline is necessitated by a standardised system of care, which requires, for its effective function, a standardised body willing to be in receipt of such care. Not only is this in keeping with Foucault’s conception of discipline, but also with previously mentioned themes of Hirschauer’s ‘dislodgement’ of individual identities from patient bodies, and Goffman’s ‘role distance’. All describe a process of preparing bodies for particular interventions.

While doctors L and N appear to be less concerned about patient dignity and patient interests than doctors Q, J, and M, what is more productive, and certainly less accusatory, is to consider all individuals cited previously as interested in patient comfort at different stages in the patient experience. The latter express concern over patient comfort at the stage of administering the patient gown, while the former discuss the recovery of patient health facilitated by the introduction of the (unfortunately) degrading artefact. This dual concern also indicates that the patient gown exists in two distinct forms: in one setting the gown is a tool for taming bodies, while in another one it is a signifier of expectations and individual roles. This is significant if the aim is to define the function of the patient gown. Artefacts are neither wholly good nor wholly bad. A patient gown that assists individuals in returning to health by first working them through a system of degradation makes this duality quite clear.

¹⁷₀ Foucault, Discipline and Punish, 135.
Foucault describes four major categories of technologies: those of production, those of sign systems, those of power, and those of the self, and emphasises that each category forms its own unique “matrix of practical reason”. Applying Foucault’s categories of technology to the accounts of the physicians, nurses, and patients noted thus far, the gown aligns with both technologies of power and those of the self. Technologies of power are those that “determine the conduct of individuals and submit them to certain ends or domination, an observing of the subject.” From the accounts provided by doctors L and N, such technologically mediated domination enforced through the patient gown allows for particular ends within the clinic. Using the gown, patients are transformed into a constitutive element within a system that allows for the administration of care and the recovery of health. Even in physician accounts where suggestions of ‘technologically mediated domination’ were not made, a causal link is drawn between the donning of gowns and gaining of access to patient bodies as, for example, in Dr Q’s description of the gown as exposing patient bodies. Nonetheless, what makes the gown an effective tool in the exposure of patient bodies need not necessarily be limited to the structural elements of the artefact alone (that is to say not limited to its openings), but also the emotional or psychological consequence of donning such an exposed garment. In short, the gown does not expose patient bodies by its posterior openings alone, but by the combined emotional discomfort of dressing in such an exposed item of clothing.

At the same time the gown functions as a technology of power, it may also be a technology of personal protection for the individual clad. This aspect of the gown aligns more closely to technologies of the self. Technologies of the self are described as those that “permit individuals to effect by their own means, or with the help of others, a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being so as to transform themselves in order to attain a certain state of happiness, purity, wisdom,

172 Ibid.
perfection, or immortality.\textsuperscript{173} At the centre of such technologies, argues Foucault, is the act of taking care of oneself.\textsuperscript{174} Returning to Goffman, a relationship is made apparent between Foucault’s transformation for protection and care of oneself, and Goffman’s dislodgement of an individual’s identity from an individual’s immediate setting. Three characteristics of asylums are particularly relevant here. The first of these is that individuals are cut off from the identities they possess externally to the clinic by dispossessing them of the markers of that identity. The second characteristic is that such possessions are replaced by similar tokens selected by the institution, which then effectively recalibrates identities to suit its own aims. Finally, in enacting the swap of identity markers, the identity of the individual, as it exists in the external world, is protected from the damage inflicted upon the internal, clinical world identity of the patient.\textsuperscript{175} Dr L’s comment that patient gowns simultaneously make patients feel vulnerable and comforted becomes more meaningful when placed in the context of Foucault’s technologies of the self and Goffman’s dislodgement. Clinical practices frequently involve actions which, if performed in any other setting, would be immediately recognisable as deeply degrading: the stripping of clothing, the selection of meals and mealtimes\textsuperscript{176} by others, the touching of bodies by strangers, the receipt of instruction on when, how often, and with whom to walk, use the lavatory, or take showers, are all clearly degrading processes. However, each of these processes within the clinic serves a particular function in the recovery of health. To simplify the argument, it is possible to consider such degrading processes as beneficial to patients; consequently, the dehumanisation of patients can be seen as a useful tool in protecting their sense of self while receiving these simultaneously degrading and beneficial procedures. To provide an alternative simplification, when the very process of clinical care is degrading, the dehumanisation of patients becomes a form of patient care, protecting the identity that individuals perform outside of the clinic from the damage to perception of self that takes place within the clinic. Such an explanation may also account for

\textsuperscript{173} Ibid.
\textsuperscript{174} Ibid., 226.
\textsuperscript{175} Goffman, \textit{Asylums}, 19, 307.
\textsuperscript{176} Which is to say, in a sense, what an individual is to put in their body and when.
the low incidence of expressed concerns by physician and nurse respondents. If treated as a tool for the effective administration of patient care as well as a means by which patients preserve their inner sense of identity, the patient gown performs an indispensable role within the clinic.

2.3. This is How We Do It
Formal Training and Practice and its Relationship with the Use of the Patient Gown

Data collected from physicians and nurses emphasises a contrast between formal training on the appropriate use of patient gowns and practices relating to the use of these gowns within clinics. While all individuals interviewed express a clear sense of the function of the gown within the clinic, almost all agree that the gown was never mentioned in their education. Those who remember that the gown was mentioned in their education agree that the gown and its appropriate use were either given little attention or that they assume that the gown was mentioned but simply could not remember what was said. Of the physicians interviewed, only one claimed that explicit training was given on the use of the gown but only described its general use when asked to recount this training. Physicians and nurses accounted for the difference between training and practice by describing the gown, its use, and its role as general knowledge and part of the general culture, practice, and institutional norms of the clinic.

All physicians were asked to comment on the mention of the patient gown during their tertiary or practical training. Nonetheless, responses from recent graduates were paid particular attention to as these individuals have a more distinct memory of their training. Doctors N, J, and M are all interns at varied districts and across varied wards. The responses provided to the question of patient gowns in training are as follows:
Dr N:

They didn’t really say anything. We had a psych lecturer who said that it (the gown) helps patients feel like they’re on a lower level, they’re in their pyjamas and you’re in your nice suit. It makes them more compliant. He might have been joking, I guess, but it’s true.

Dr J:

No? Hold on [pause] no I don’t think so.

Dr M:

If it was mentioned it would only have been in ‘oh patients wear gowns’, so it was never discussed as a thing, it was just commented on that patients wear gowns.

In contrast to these responses, each of the above interns provided a prompt response when asked what they considered to be the function of the gown. These responses focused on access to patient bodies for the facilitation of medical treatment.

Dr N:

With the gown you can cannulate\(^\text{177}\) easily and you don’t have to worry about getting blood on their clothes.

Dr J:

Once they’re in the hospital they’re obviously being deemed unwell and we need easy access, we need them to be wearing as little as possible and of course, if they go into a medical

\(^{177}\) The introduction of a small tube, or cannula, into the body, for the administration of, or removal of fluid.
emergency, we need to be able to take things off quickly and make sure they are not in any restrictive clothing.

Dr M:

I think it’s probably designed so that it’s easy to access patients for assessments, it’s easy to access for procedures, and, if nurses need to apply catheters, or do any procedures, that they have easy access.

Dr D, a specialist and departmental head in the Western Sydney district and lecturer of his specialisation at a NSW University was asked if the patient gown was raised within his classes. Dr D responded:

I don’t remember when, for me, when I’m lecturing, to mention about the gown. But I’m sure if someone is talking about infectious control or infectious disease specialists then they have to mention it. But when I was at university, which was years ago, I don’t remember anyone mentioning it. But practically, it was part of the life. I mean, anybody who was admitted to the hospital had to have one. Here is more relaxed, overseas, where I was trained, everyone had to be in a gown.

Physicians accounted for the lack of training on the appropriate use of the patient gown by explaining that it is nurses, rather than physicians, who are responsible for donning patients in gowns, and consequently nurses who would have received training on the appropriate use of the patient gown. Asked about training on the purpose or appropriate use of the patient gown, nurses provided similar answers to physicians. They related that the gown was not mentioned in training or that they could not remember any mention of it but felt that the proper use of the gown was likely to have been noted within training.

Nurse B, from the South Eastern Sydney health district, explains that the gown exists within the clinic as a kind of vestigial remnant of earlier, mandatory clinical practices. Lessons on
the appropriate use of the patient gown derive from practice, rather than training. Nurse B explains:

I got my education in 1978, 1980, when the gown was mandatory for any patient in the clinic. Now it’s just part of the culture of the ward. I guess I feel neutral about the gown because I’ve been using it for 34 years.

Describing the patient gown as part of the culture of the ward reemphasises the status of the gown as an institutional norm. The gown here is a symbol of the clinic and a deeply ingrained element of clinical practice. In order to single out the gown here would require severing the artefact from the broader network of practices and symbols to which it is tied. In short, to question the function of the gown, one would also need to question the function of the clinic.

In a similar vein to the account of Nurse B, Nurse T describes the patient gown as a ward staple. Rather than placing the gown in the context of past mandatory practice, Nurse T considers the use of the patient gown as an extension of etiquette, understanding the importance of the gown is a demonstration of the patient’s understanding of what constitutes appropriate behaviour within the clinic. Nurse T responded to the question of the gown in formal training by stating:

No (the gown was not mentioned), you don’t need to mention it, putting a patient in a gown is just common sense.

Whether the consequence of habit or common sense, the accounts of Nurses B and T suggest that it is nurses who enforce the dressing of patients in patient gowns. Nonetheless, physicians and patients describe the task of dressing patients as a responsibility passed on to nurses from physicians.
Dr N explains that nurses are expected to dress patients in gowns in keeping with the preferences of physicians within the clinic. To Dr N, nurses enforce this dressing without full comprehension of the gown’s function. Dr N describes:

There have been times when patients have been put into gowns by nursing staff who don’t really know when we’ll need them in gowns. Sometimes they don’t need a gown, it’s very rare that you wouldn’t end up putting them in one but cases like UTIs, you don’t need to examine the body. There are senior doctors who refuse to see them (the patients) until they change (into gowns).

Dr L also provides a list of patients who would not require gowns for access to bodies, “patients who have come in to hospital for straight forward reasons; lacerations that need to be sutured, fractures that need to be X-rayed” before describing that patient gowns are required for role assignment as well as physical examination.

Asked why senior doctors required patient gowns, N described a system of hierarchy in which the physicians sits firmly above nurses and patients:

Because they’re in charge and they can. It makes things easier for them when they see the patients.

Patients also describe nurses as administering gowns under the instruction of physicians, and physicians as behaving as though their own interests were paramount to those of other actors within the clinic. Patient 9, a patient in the Northern Sydney district described the process

---

178 Urinary tract infections.
of being donned into a patient gown as a “law” of the clinic enforced by nurses and set by either physicians or broader, more overarching rules and regulations:

When I was in my bed I took my underwear off because I didn’t have a choice; I was in the hospital but I’d seen people going with their backs open; old men, young women, all with their tuchus out. I was uncomfortable because I didn’t want to see people’s backs. If they didn’t care or whatever, I don’t know, but I was uncomfortable. The thing I couldn’t understand was why should I take my bra off? The procedure had nothing to do with my upper body. … Even if I held my gown closed I felt I was naked. When I was in bed, I put the blacked on my legs but I just felt I was naked.

Patient 9 was asked if she had felt the need to get up and move about at any point while in the patient gown. Patient 9 describes needing to use the washroom after being instructed to drink large volumes of liquid to purge her stomach for the impending procedure:

I needed to go but I didn’t go. I was going to go do my pee-pee but I didn’t go because I was too uncomfortable to go out there with no underwear, with no shoes, with nothing, nothing, just like that: no pants, no bra. I wasn’t happy to do that. It wasn’t the young girl’s fault (the nurse), they made her say it, because I told her I still have one and a half hours to go until my test and she said “no, sorry, by law you have to take it off and be ready”.

Asked what she felt the nurse meant by the term ‘law’, Patient 9 explained:

---

180 It is worthwhile to note that when asked more general questions about patient gowns, Patient 9 was comfortable using more explicit terms like “bottom” to refer to patient posteriors. Once asked to relay her own experience, the patient reverts to vague descriptions like “backs”, or uses the Yiddish “tuchus”. This discomfort is demonstrated further in the second excerpt from Patient 9, in which the patient uses terms such as “pee-pee” in the place of “urinate”. The discomfort introduced with the patient gown, unlike the performances of Goffman, do not get shrugged off with the removal of the patient costume. As suggested by Butler’s account of performativity, Patient 9 absorbs aspects of the patient performance into her lasting identity, carrying the shame associated with exposure into her larger sense of self. This has significant implications for the study of the patient gown presented within this thesis as the suggestion made by Patient 9 is that any view of the gown as a tool for the protection of ‘self care’, or, for that matter, any kind of patient ‘sick-role’, is a limited one and does not account for all patient experiences.
By the hospital’s law. I said ok because I didn’t want to upset her, the poor girl was just doing her job.

Descriptions of nurses’ roles, such as those given by Dr N and Patient 9, contribute to a false view of nurses’ work as unskilled. Dr Q summarises this sentiment towards nurses in his explanation of physician responsibilities to patients who express discomfort in patient gowns. Dr Q explains:

They don’t often ask the doctors, more like the nurses or that kind of thing, the help-staff, you know? They don’t ask us, they know we’re only there for diagnosis and treatment, not the other stuff.

Asked what was included in the category of “other stuff”, as well as the tasks that comprise the role of “help staff”, Dr Q continued:

You know, those unimportant things, asking if they’re (patients) ok, getting them blankets, making sure they’re comfortable.

Dr Q makes two distinct and important claims about physician views on nursing staff and on patients. First, that the work of nurses is akin to the work of hired help. Rather than performing a unique and essential function, nurses perform acts that do little more than alleviate patient discomfort, tasks that could be performed by any category of actor, rather than requiring the particular training of nurses. Secondly, that patient comfort is an issue unrelated to patient treatment. The contrast between nurse accounts of nursing roles and physician and patient accounts of nursing roles describes practices in the clinic that are complementary to an investigation of the patient gown.

Judy Wajcman describes a relationship between gender and perceived technical competence dictated by an environment in which definitions of skill are more readily set by ideological
and social constructions than by actual technical competency. The ideological and social constructions at play here describe ‘men’s work’ as requiring manual dexterity, coordination, technical knowledge, and other markers of skill that are seen as unique to the roles of male actors. Establishing ‘women’s work’ as a binary to this leads to an evaluation of women’s work as unskilled, regardless of the accuracy of this evaluation. Wajcman singles out nursing as particularly indicative of this process, explaining:

Nurses provide another example of an occupation that requires a great deal of training and ability, as well as technical knowledge. However, nursing is not thought of as a technical job because it is women’s work. Moreover, because such work has been socially constructed as unskilled it has also been undervalued.\(^{181}\)

Nurses’ work suffers from the dual considerations of the undervaluing of women’s work and the categorisation of nursing as invisible work. Having established, from Wajcman’s description, that nursing is a technical job, reference can be made to the invisible technicians of historian of science Steven Shapin. Shapin argues that the invisibility of technicians’ roles is a reflection of past and present attitudes toward the value of skilled work and that such work becomes visible “when the apparatus (is) working as it should and the results (are) as they ought to be.”\(^{182}\) Nonetheless, if invisible actors can be likened here to invisible technologies, then it is not the smooth operation of the apparatus that betrays their presence, but the breakdown of that apparatus. The description of invisible work, and in particular the invisible work of nurses, presented by Geoffrey Bowker, Susan Leigh Star, and Mark A. Spasser meets technological breakdown and Shapin halfway. Bowker et al describe nursing roles as simultaneously requiring a level of invisibility, and undervalued as a consequence of that invisibility. While work must first be visible in order to be recognised as valuable, making the breadth of nursing work visible undermines nurses’ ability to effectively

\(^{181}\) Wajcman, Judy, *Feminism Confronts Technology*, (New Jersey: John Wiley & Sons, 2013)
participate in surveillance roles.\textsuperscript{183} For Bowker et al, invisibility, or, to use their preferred term, erasure of nursing work has different consequences on the field based on who instigates the erasing. In their argument, nurses imposing erasure or invisibility on their own work do so to maintain the integrity and efficacy of their work. Contrarily, erasure of nurses’ input in medical records, in patient treatment, and in breadth of tasks, imposed by external actors such as patients or physicians, has the negative consequence of undermining the importance and sophistication of nursing work.\textsuperscript{184}

As invisible actors within the clinic, nurses occupy a similar position to the patient gown. This does not mean that nurses are minor artefacts in the structuring of the clinic; nurses perform an essential and complex role, one that is not being contested here. The similarity between nurses and patient gowns derives from the invisibility of their contributions. Both nurses and patient gowns become the stuff of the clinic. I have already described technology as extending beyond tools and machines to practices and processes. If we accept the claim that nurses, as engaging in unrecognised practices and processes, can be categorised as mundane actors, then we move closer to achieving the aims of this thesis. The patient gown has not been drawn out here as a unique artefact, rather as a remarkably commonplace artefact in the clinic. Nonetheless, such a mundane artefact has been shown from physician, patient, and nurse perspectives to have a highly essential role in the structuring of the clinic. Overlooking mundane technologies in the clinic in favour of their more high-tech relations leads to a confused image of the clinic. It is the interplay of mundane and non-mundane technologies and actors that converge to establish the clinic, as we know it.


\textsuperscript{184} Ibid.
2.4. Conclusions

What has been presented in this chapter is a pitch for a new conception of the patient gown, based on an evaluation of comments made by physicians and nurses on the artefact and set within a background of sociological literature. Through Foucault’s account of discipline and docile bodies, Goffman’s account of asylums, criticisms levelled at the patient gown from the nursing sphere, and data collected across the NSW health network, the gown has been recast in this chapter as more than a tool that permits for bodily access, but rather a device for initiating this access. I view the patient gown as a tool for initiating a complement cascade of healthcare practices centring on the gown’s position as a signifier of social expectation. This has been presented without judgement on the fairness or unfairness, or ethicalness or unethicalness of the gesture. Certainly, such processes are dehumanising, but the processes of the clinic without the buffer of these dehumanising tools are, arguably, far more scarring to the individual’s sense of self and identity.

Beyond the setting of the clinic, but still tied to the patient gown, the role of designers has been largely overlooked in current evaluations of the clinic and the dressing of patients in patient gowns. While designers do not actively place patients in such gowns, they are, nonetheless, closely tied to the gown taking its present form. Industrial designers and patents, as the product of industrial design, will be evaluated in the following chapter in order to shed light on the contribution of these invisible actors to the development and function of the gown in the clinic. While STS has emphasised that we must look at social contribution to the development and defining of technologies, that industrial designers play a hand in the development of the patient gown is beyond dispute. Investigating industrial design and patient gown patents will provide a lens through which some of the heretofore unexplained but heavily criticised elements of the patient gown can be understood.
Chapter Three

Incorporating Industrial Design in a Study of User and Artefact

Henry Dreyfuss’ classic of Industrial Design, *Designing for People*, addresses and responds to frequently asked questions that arise in talks and panel discussions. The first question asked is “why are barns painted red?” Dreyfuss explains:

Architect Eero Saarinen expressed the belief that the tradition of painting barns red originated in Finland and Sweden because red - “red earth” - was the only available paint. Financier Harry B. Lake and Faber Birren, the colour expert, stated that barns were painted red, originally in New England, because the colour absorbed the solar heat and insured a warmer barn for the livestock during the winter. … Francis Henry Taylor, of the Metropolitan Museum of Art, dug up the fact that most paint preservatives are reddish, making it easiest to use them in red paint without destroying the colour. On the other hand, William W. Wurster, dean of the School of Architecture at the University of California, said that the colour red has no special durability factor since it is the oil that is important.185

Dreyfuss’ explanation continues, providing arguments from architects, advertising men (to use the contemporaneous term), scenic designers, industrial designers, business counsellors and glass manufacturers, whose concerns span the range of cost efficiency, cleanliness, weather durability, advertising compensation, advertising backdrops, historic symbolism, signifiers of prosperity, and Christmas cards.

Dreyfuss’ response to the question of colour choice draws attention to the multiplicity of perspective points to be considered when making claims or assertions about artefacts. This is of key importance not only to an evaluation of industrial design’s relevance to social and philosophical studies of science, but also to the broader purpose of this thesis. The patient-

worn hospital gown does not have any single detrimental feature or any single benefit, nor is there any group of individuals to be singled out as uniquely accountable for the gown taking its present form. In asking the question ‘why does the existing model of patient gown persist in the face of various complications linked directly to its design?’ emphasis is not placed on any single feature of the gown, but on multiple features which each signify the kind of question asked and the kinds of audiences asking those questions. To borrow from Haraway, what is emphasised here are partial perspectives on the artefact.186 To treat the gown as an immutable artefact across audiences would be to ignore the particular interests of each audience. Rather, the artefact exists in multiple forms each shaped, in a sense, by the eye of the beholder.

Nonetheless, what is reminded by Dreyfuss’ explanation is that each explanation for the redness of barns insists on a particular function tied to colour choice. While the original intention behind red barns remains unknown, what is emphasised by Dreyfuss’ account is that artefacts are designed with functions and methods of use in mind and that these functions and methods are tied to what each discipline defines as the essential character of the barn.

In this chapter I will explore definitions of users, and more specifically users of the patient gown, set by the field of industrial design. Further, I will investigate recent patents of patient gowns to determine which elements of the patient gown are most quickly altered in redesign, and, more tellingly, which elements are retained. In contrast to the theoretical considerations of industrial design, an investigation of patient gown patents allows for consideration of design realised. Through an investigation of patents, an indication is given of those features of the gown deemed most wanting, as well as those features of the gown that appear to be most essential to its basic character or function. If the STS approach is to consider the redesign of artefact as user-mediated then by investigating patents an image, or at the very least, a sort of blurred silhouette, of the user can be mapped, allowing for an investigation of user categories.

and in particular a comparison between existing assumptions on patient gown user categories and patent-suggested user categories. While existing studies of patient gowns commonly criticise the construction and appearance of the presently used gown, studies from the fields of nursing, design, medical anthropology, or sociology of medicine that combine these criticisms with investigations of new design patents seem to be non-existent. Rather, the tone of such articles, and in particular those that originate within the field of nursing, is one that suggests no alternative to the currently used form of the patient gown presently exists. Where nursing studies have emphasised the detrimental nature of the patient gown on patient dignity and health, industrial design has offered multiple alternatives – over 120 globally in the last five years. What is unclear, then, is not only why such a heavily criticised design is presently used in public clinics, but also what the potential benefit of the persistence of such a design may be. What is suggested by this rift between innovation in use and innovation in design is that the lack of change to patient gowns is the result of considerations beyond simple options of redesign. Invited by this contrast in innovation in use and design is a reconsideration of existing user categories from the field of user studies and the difficulty of identifying lead users in relation to mundane artefacts.

Industrial design has been intentionally singled out for investigation here. Studies from science and technology studies have noted the interplay between engineers, inventors, and

---

187 Turnock and Kelleher, Matiti and Trorey, and Henderson et al all implicate the gown in instances of reduced patient dignity. Nonetheless, all conclude their studies with the suggestion that issues of patient dignity can be improved by encouraging nurses to communicate and explain practices and procedures with patients, including the practice of dressing patients in gowns. Turnock and Kelleher, “Maintaining Patient Dignity”. Matiti and Trorey, “Patients’ Expectations”. Henderson et al, “Patients’ Dignity”. Turnock and Kelleher add to this assessment the claim that “clothing ICU patients under all circumstances may be problematic. The need to maximize psychological assessment may often limit the extent to which patient dignity can be promoted. The need to compromise patient dignity is an unfortunate consequence of critical illness”. What can be understood from Turnock and Kelleher’s summary is that while particular threats to patient dignity can, and ought to be addressed, others are simply unfortunate necessities. Turnock and Kelleher, “Maintaining Patient Dignity”, 151-152.
Walsh and Kowanko recommend nurses maintain a ‘sense of humor’ when interacting with patients as a solution to reduced patient dignity, but do not note any suggestion to alter or remove the gown that is at the basis of this comic relief. Walsh and Kowanko, “Perceptions of Dignity”, 149.
users. Professors of history of technology Johan Schot and Adri Albert de la Bruheze explain that complementing studies of technological production with studies of public reception of such technologies has been a necessary development of studies of technology.\textsuperscript{188} While such studies have famously looked at engineers across multiple fields: in the manufacture of automobiles, household electrical goods, and large-scale software systems, industrial design and the role of industrial designers in the development of technologies have been absent in such accounts. Nonetheless, the field has a unique role in the development of technologies. Industrial design bridges the roles of engineers and users by digesting the products of engineering into forms that can be utilised and understood by users. Designer and Ulm School\textsuperscript{189} design theorist Tomás Maldonado defines industrial design as:

A creative activity whose aim is to determine the formal qualities of objects produced by industry. These formal qualities include the external features but are principally those structural and functional relationships which convert a system into a coherent unity both from the point of view of the producer and the user. Industrial design extends to embrace all aspects of the human environment which are conditioned by human production.\textsuperscript{190}

The distinction between industrial design and design engineering can be difficult to discern. Nonetheless, a discussion on the differences between industrial design and engineering would move beyond the intended boundaries of this thesis. The distinction can be simplified here to assign to design engineering the task of transforming ideas into products, and the task of industrial design to tie together aesthetic considerations with usability of such products.

\textsuperscript{189} A school of design credited with the introduction of system-oriented design methods, interdisciplinary communication in design plans, and the development of the professional designer.
However it is the association of industrial design with the aesthetic features of any given technology that make it particularly pertinent to a study of the patient gown. Discussions of the gown’s role within the clinic all centre on the artefact’s appearance and the consequence of this appearance on both those who don gowns and those who dress others in gowns. Industrial designers, and the ways industrial designers expect their artefacts to be used, rather than engineers, are pushed forward here as worthy of evaluation in relation to the very visual artefact that is the patient gown.

3.1. What’s my Scene?

Industrial Design and the Role of Users

Users occupy a unique position within the field of industrial design. Users have been singled out within this field as essential to the establishment of product design specifications. However, with such great responsibility heaped upon the user, industrial design has also determined a strict set of requirements to be met by users. Industrial innovation sociologists Roy Rothwell and Paul Gardiner argue that the relationship between designer and user is not one in which the direction of responsibility runs from designer to user, rather that users possess a responsibility towards the designer and the designer’s product. In short, rather than construct technologies with the user in mind, users must adapt to better suit the technology designed for them by understanding the appropriate use of the technology and acting as suitable representative for the designer and the technology. Rothwell and Gardiner explain:

Establishing the appropriate user/producer interaction is not always as simple as it sounds. For example, the producer must determine that he has chosen an innovative user, i.e. one with a track record of purchasing up-to-date equipment and utilising it appropriately. … care must be taken to establish contact with users whose needs are typical of the industry generally; the

---

choice of an unrepresentative user will result in the designing of a product of very narrow
market appeal.\textsuperscript{192}

Professor of industrial design, Marc Hassenzahl argues along similar lines. For Hassenzahl, the industrial designer is obliged to incorporate the user’s perspective, but needs only do so according to how the designer sees fit to define such a perspective.\textsuperscript{193} Hassenzahl explains: “each individual constructs a personal version of the product character”, and categorises these versions as the “apparent product character.”\textsuperscript{194} Such a definition of users is problematic to say the least and raises three immediate issues. The first of these is the contradiction of a designer-defined user perspective, where user perspectives are simultaneously personal to the user. Hassenzahl does not explain the seemingly omniscient position of the designer but does provide appropriately broad categories of user interests to account for this. These are “appeal, pleasure, and satisfaction.”\textsuperscript{195} The second issue here is the notion of an “apparent” product character, which suggests the existence of a “true” product character. Who is responsible for determining such a character is contentious to categorise. The final issue relates to the correct use of any given technology. That there should be any single appropriate or correct way of using a technology is debatable. Oudshoorn and Pinch argue this point using the example of the alarm clock. The authors explain: “an alarm clock can be worn as a political statement by a rapper; it can be used to make a sound on a Pink Floyd recording; it can be used to evoke laughter … it can be used to wake us up.”\textsuperscript{196} It should be emphasised that Oudshoorn and Pinch are discussing the use of technology here, rather than character or meaning of a given technology. In each of the examples put forward by Oudshoorn and Pinch, the alarm clock performs some role relating to the standard understanding of a clock’s purpose – as a timepiece. The alarm that sounds in the introduction to Pink Floyd’s \textit{Time} acts as a reminder of the song’s eponymous subject matter. Flavor Flav’s oversized clock necklaces have been

\textsuperscript{192} Ibid.
\textsuperscript{193} Hassenzahl, Marc, “The Thing and I: Understanding the Relationship Between User and Product.” in \textit{Funology}, eds Mark A. Blythe et al. (Rotterdam: Springer Netherlands, 2005), 32.
\textsuperscript{194} Ibid.
\textsuperscript{195} Ibid.
\textsuperscript{196} Oudshoorn and Pinch, \textit{How Users Matter}, 1.
described by the rapper as an appreciation of time as an ever-present force in everyday life. While the example emphasises that the alarm clock can be used to many ends, neither the ‘apparent’ nor the ‘true’ character of the artefact changes – these are clocks used in different contexts, rather than fundamentally different objects.\textsuperscript{197}

While Rothwell, Gardiner, and Hassenzahl all argue that industrial-designer-defined interpretations of user interests ought to direct product design specifications, industrial designer and design consultant Lauralee Alben takes the argument to its extreme by suggesting that the category of users be replaced with something altogether more convenient for the designer. Alben explains:

\begin{quote}
The criteria [for user experience, or, as Alben prefers ‘interaction experience’] fall into two categories. Those in the first group make a direct contribution to the user experience. For example: was the product easy to learn and use? The second kind of criteria concern the development process used by the product’s designers, which indirectly affect the user. There are just two of these: was the product grounded in an understanding of its intended users and was the product a result of an effective design process? All the criteria we describe are factors either contributing to or components of the user’s experience of the product.\textsuperscript{198}
\end{quote}

What is significant about this explanation is that in addressing a solution to the issue of users, the user is removed entirely in favour of emphasising design features. Alben’s first criterion for identifying users aligns with that of Rothwell and Gardiner, where users are those capable of reflecting the skill of the industrial designer, and capable of utilising the technology according to the specifications of that designer. While an artefact that is difficult to learn or use may be seen, under Alben’s description, as requiring redesign, it is also possible to

\textsuperscript{197} What is implied by such accounts is a preconceived metaphysical notion of the artefact; to argue that a clock has been used to a novel end suggests some sort of baseline ‘proper’ function for the clock to be compared against. This raises broader concerns such as how we determine the proper character of various artefacts while avoiding arguments of determinism. A more thorough account of this problem is found in Fehross, Anson, “Against Intentionalism: A Reappraisal of Artefactual Metaphysics, with an Eye to Weaponry,” (Masters thesis, University of Sydney, 2014).

understand Alben’s description as claiming that the method and use of an artefact selects a particular kind of user who is able to comprehend these features of the artefact. In light of this, the second criterion becomes more confusing still. For the product to be grounded in an understanding of intended users, intended users need to be defined. If following from Alben’s first condition that users understand how to use a designed object then the second criterion suggests a contradiction: that artefacts demonstrate an awareness of users, and users are those able to understand those artefacts.

Ultimately it is Dreyfuss who presents the conflict most clearly, stating on one hand that, “our job is to make (the user of the technology) compatible with their environment”, and that in order to achieve this aim, “a meeting is held with the executive group, composed of department heads, to learn their objectives … only in this way can the industrial designer be sure that his ideas jibe with the practical facts of business life.”199 Dreyfuss illustrates this “executive group” (figure 1), labelling individuals as “executive”, “advertising”, “promotion”, “distribution”, “sales”, “production”, and “engineering”.200 These figures sit at a round table, the symbol of equal importance and equal participation; the user is starkly absent here.

199 Dreyfuss, Designing for People, 27.  
200 Ibid., 54
The user, within the field of industrial design, then, can be defined as a placeholder for the intentions of the industrial designer. Where nursing has emphasised patients as the key users of patient gowns, industrial design paints a wholly different picture. Investigating patents, as the realised products of industrial design, indicates the kinds of users industrial design cites as relevant to the patient gown.

3.2. **Oh! You Pretty Things**

**Users Revealed Through Patents**

Between 2009 and 2014, over 120 patents for new patient gown designs were registered.\(^{201}\)

The emphasis of these redesigns fall into eleven main categories, as demonstrated by Table 1.

\(^{201}\) These patents were logged on the World Intellectual Property Organisation, GooglePatents, and the Australian Government IP Australia web page.
Table 1: Design Emphasis in Patient Gown Design Patents 2009-2014.

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Patent number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change to new form of textile</td>
<td>US D584884 S1</td>
</tr>
<tr>
<td></td>
<td>US 20100017933 A1</td>
</tr>
<tr>
<td></td>
<td>KR 1020030094218</td>
</tr>
<tr>
<td></td>
<td>EP 1255546</td>
</tr>
<tr>
<td></td>
<td>US 2013019190 A1</td>
</tr>
<tr>
<td></td>
<td>US 7666151 B2</td>
</tr>
<tr>
<td></td>
<td>CN 1486145</td>
</tr>
<tr>
<td></td>
<td>US 20100050316 A1</td>
</tr>
<tr>
<td></td>
<td>US 7627908 B1</td>
</tr>
<tr>
<td></td>
<td>JP 2003020554</td>
</tr>
<tr>
<td></td>
<td>MX PA/a/2003/004247</td>
</tr>
<tr>
<td></td>
<td>KR 1020050010074</td>
</tr>
<tr>
<td></td>
<td>US 20140026289</td>
</tr>
<tr>
<td></td>
<td>US 20130091615 A1</td>
</tr>
<tr>
<td>Replacement of a reusable gown with a disposable gown</td>
<td>US 20130091615 A1</td>
</tr>
<tr>
<td></td>
<td>EP 2459021</td>
</tr>
<tr>
<td></td>
<td>US 20130191960 A1</td>
</tr>
<tr>
<td></td>
<td>US 20120005804</td>
</tr>
<tr>
<td></td>
<td>US 20110023210</td>
</tr>
<tr>
<td></td>
<td>US 20110024485</td>
</tr>
<tr>
<td></td>
<td>WO/2011/014354</td>
</tr>
<tr>
<td></td>
<td>CA 2769632</td>
</tr>
<tr>
<td>Addition of gown fastening or change in gown fastening position</td>
<td>US 20100242150 A1</td>
</tr>
<tr>
<td></td>
<td>US 7942856 B2</td>
</tr>
<tr>
<td></td>
<td>CN 102835756</td>
</tr>
<tr>
<td></td>
<td>US 7526816 B2</td>
</tr>
<tr>
<td></td>
<td>US 7694350 B2</td>
</tr>
<tr>
<td></td>
<td>WO/2005/102084</td>
</tr>
<tr>
<td></td>
<td>CA 2497480</td>
</tr>
</tbody>
</table>
| Change of gown fastening device | US 20130276202  
|                                | US 20140026289  
|                                | US 75944279 B2  
|                                | US 20120060257 A1  
|                                | US 20140068835 A1  
|                                | US D656710 S1  
|                                | US 20140173803  
|                                | WO/2014/078594  
| Physical comfort of garment    | US B5848825 S1  
|                                | US 20140026289  
|                                | US 20130276202  
|                                | US 20100242150 A1  
|                                | US 7987524 B2  
|                                | US 7594279 B2  
|                                | US 20120151658 A1  
|                                | US D690078 S1  
|                                | US 20130131617 A1  
|                                | US 08332965  
|                                | ZA 2009/00798  
|                                | US D656710 S1  
|                                | US 20140058485  
|                                | US 20120060257 A1  
|                                | US 7549179 B1  
|                                | US 8359666 B2  
|                                | US 7836520 B2  
|                                | US 8069497 B2  
|                                | CN 102835756  
|                                | US 20100017933 A1  
|                                | US 7694350 B2  
|                                | US 20120151658 A1  
|                                | US 20110186057 A1  
<p>|                                | US 20130131617 A1 |</p>
<table>
<thead>
<tr>
<th>Ease of donning/doffing for nurses and unassisted donning/doffing for patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 20140068835 A1</td>
</tr>
<tr>
<td>US 20120204316 A1</td>
</tr>
<tr>
<td>US 20130191960 A1</td>
</tr>
<tr>
<td>US 7964350 B2</td>
</tr>
<tr>
<td>US 08332965</td>
</tr>
<tr>
<td>US 7596814 B1</td>
</tr>
<tr>
<td>US 8359666 B2</td>
</tr>
<tr>
<td>US 7526816 B2</td>
</tr>
<tr>
<td>US 7836250 B2</td>
</tr>
<tr>
<td>US 20010017933 A1</td>
</tr>
<tr>
<td>US 87937524 B2</td>
</tr>
<tr>
<td>US 754279 B2</td>
</tr>
<tr>
<td>US 20120151658 A1</td>
</tr>
<tr>
<td>US D690078 S1</td>
</tr>
<tr>
<td>US 20120060257 A1</td>
</tr>
<tr>
<td>US 20140068835 A1</td>
</tr>
<tr>
<td>US 2013091615 A1</td>
</tr>
<tr>
<td>US 20130191960 A1</td>
</tr>
<tr>
<td>US 754979 B1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in design facilitating easier utilisation of medical equipment e.g. post-operative draining systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 20100242150 A1</td>
</tr>
<tr>
<td>US 7942856 B2</td>
</tr>
<tr>
<td>US 7526816 B2</td>
</tr>
<tr>
<td>US 8069497 B2</td>
</tr>
<tr>
<td>US 7823221 B2</td>
</tr>
<tr>
<td>US 798754 B2</td>
</tr>
<tr>
<td>EP 1491733</td>
</tr>
<tr>
<td>US 20110186057 A1</td>
</tr>
<tr>
<td>US 20130131617 A1</td>
</tr>
<tr>
<td>US 20100251454 A1</td>
</tr>
<tr>
<td>US20110107494 A1</td>
</tr>
<tr>
<td>US 20110022135</td>
</tr>
<tr>
<td>US 201100235962</td>
</tr>
<tr>
<td>Feature</td>
</tr>
<tr>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Change to method of manufacture</td>
</tr>
</tbody>
</table>

Returning once more to nursing, patient dignity, emotional comfort and minimisation of bodily exposure have each been identified by the field as the most significant and troublesome characteristics of the gown to its lead user: the patient. What is revealed by an investigation of patents is that industrial design upholds an entirely different conception of the user and their interests.

The physical comfort of patient gowns is singled out as worthy of redesign by the above patents. Nevertheless, there is a distinction here between physical comfort and emotional comfort. Patents address issues of fabric softness, warmth, movement, and style. Not of concern here is the emotional state of the patient, patient ability to express individual tastes.
and identities, cultural or religious values in relation to covering of bodies, or the minimisation of bodily exposure of those donned in gowns. Furthermore, on the issue of bodily exposure, seven of the above patents propose redesign of the patient gown to encourage the further revealing of bodies.

While a number of patents also address the need for specialised gowns in a specialised system of medical care, the category of case specific patient gowns is not concerned with individual patient cases, rather various categories of treatment or disease. Gowns specifically designed for breastfeeding are concerned with the potential for physicians and nurses to observe and supervise patients learning to breastfeed infants, rather than a means of returning a sense of bodily ownership and autonomy to patients. Keeping in mind industrial design’s definition of the user as reflected by the designed product, this description of breastfeeding gowns only further emphasises that patients are not viewed as users of gowns by industrial design, and suggests that the position of user be passed to either physicians or nurses.

Case specific gowns do not cater to the self-image of patients or to their specific cultural or religious requirements. However, studies of nursing have also been curiously silent on the topic of conflict between patient religious beliefs and patient gowns. As noted in the previous chapter, patient gowns can inflict damage to more than patient self esteem. Patient gowns can engender religious turmoil for patients. Such patients are then forced to decide between their religious beliefs and the receipt of medical care. In particular, patients describe the assignment of patient gowns to Islamic women as traumatic to such patients, detrimental to their physical health, and leading to stigmatisation within their communities. Interestingly, neither physicians nor nurses comment on such issues neither in collected interviews or the existing literature, with the exception of articles explicitly concerned with religion in the clinic. Such instances of religious turmoil were, however, noticed by patients. A brief divergence from staff accounts into patient accounts of the experience of donning gowns will
follow from here. These emphasise the instances in which case specific-patient gowns, and patient self-perception become essential to the effective treatment of care.

Two patient accounts discussed issues arising from donning patients with specific religious reservations in patient gowns. Patient 15 described the experience of donning patient gowns as influential to patient interest in receiving treatment, in particular in the case of Muslim women. Unlike the description of the gown as a tool for separating patient identities from individual identities, the account provided by Patient 15 demonstrates that in some instances patients tie their identity within the clinic to their identity beyond the clinic. Patient 15 explained:

Maman didn’t want to wear the gown but they told her she had to. Everyone said she had to so we thought it was true, but she was so unhappy in that [in the gown]. They said to her that she would need surgery but she said she didn’t want it. I asked her why she wouldn’t have the surgery, I told her she needed it so she could leave the hospital, but she told me that when they put her in those clothes they took away the veil she had between her body and the world, that was only for God but now everyone could see it. It was shame they gave to her. She said she had kept this [her privacy or her veil] her whole life and now they had taken that from her. After that she didn’t want to get surgery, she didn’t want any more life.

Patient 3 also described the experience of observing a female Muslim patient interacting with medical staff. The account given by Patient 3 provides some, albeit unsatisfactory, explanation for the absence of nurse or physician comment on considering the religious requirements of the patient – that nurses and physicians simply don’t understand what undressing means to particular groups of patients. Patient 3 recounted:

She spoke Dari, which is very similar to my language, and we would talk sometimes. She couldn’t speak English so I tried to help a bit when the doctors or nurses came. I told them that she said she wanted a bath but then they sent a male nurse. She said “no, no, no” and I told them that she wanted to be washed by a female; she didn’t want a man to see her body. The
nurse laughed and said that he was just as gentle as the ladies, and the other nurses laughed too.

He said it like he was saying it to a child, “I’m gentle too”, like she was asking for something stupid. She just kept saying “no, no, no” and then she just didn’t have a bath in the end.

Patient 3 also describes the same patient interacting with family members. Similar to the case of Patient 15, what Patient 3 notes is that the patient-identity is not always shrugged off upon discharge from the clinic. Patient 3’s account demonstrates it is not only patients who undergo a transformed sense of self, but the individual behind that patient, and the community of this individual:

Her family came to see her, she had three sons, and they were telling her things like “you can’t have your back out like that, you can’t walk around like that” she told them that she couldn’t wear anything else, she asked them to bring her something she could use to cover herself, they just kept saying “ok, ok, but you have to make sure no one sees you like this, it’s not right”.

While such issues can be argued to fall under the category of patient self-perception or patient dignity, the stakes here appear to be higher than loss of face within the confined boundaries of the clinic. Mechanic’s functionalist perspective of health care, Hirschauer’s dislodgement, and Foucault’s technologies of the self and self-care each point to similar conclusions: individuals alter their sense of responsibility towards themselves and others in order to protect their inner identities from the experiences of the clinic. Nonetheless, these accounts fall short in the examples of patients 15 and 3. Here the degrading experience of the clinic has a lasting impact on the way such patients view themselves, how they are viewed by their communities and families, how they align themselves thenceforth with their faith, and, most relevant to the clinic; their willingness to participate in clinical procedures. This aspect of the gown makes it counterproductive to the argument of bodily discipline. In addition, rather than holding responsibilities to themselves in the form of self-care, the above patients tie their sense of responsibility to a faith that exists both within and outside of the clinic. This, as has been reminded in the cases presented above, complicates justifications of the gown that focus on
patient disembodiment and degradation as integral to patient benefit. While a consideration of
the position of female, Islamic patients within the clinic is clearly called for, the issue is too
large to be simplified within this thesis. Consequently, any sort of brief evaluation that could
be given here would only be an insult to the importance of this issue. Instead, it is being
raised here as a potential avenue for further research.

Where this thesis is concerned with the patient gown in Australia, it is striking to note that no
patents were placed on new gown designs in Australia during the period 2009-2014. An
investigation into Australian patents for medical gowns yields six patents, all lapsed. Of these
six patents, only three refer to patient gowns, with the remaining three referring to personal
protective clothing for medical staff. These patents, their file date, and their functions are
presented in Table 2.

Table 2: Australian Patient Gown Patents.

<table>
<thead>
<tr>
<th>Patent Number</th>
<th>File Date</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL2749</td>
<td>1992-06-03</td>
<td>Patient gown with Velcro closures</td>
</tr>
<tr>
<td>2001276579</td>
<td>2001-07-26</td>
<td>Patient gown</td>
</tr>
<tr>
<td>21277/88</td>
<td>1988-07-13</td>
<td>Patient gown with heat resistant fasteners</td>
</tr>
<tr>
<td>2003290774</td>
<td>2003-11-12</td>
<td>Medical gown (staff gown) with fluid and microbe impervious</td>
</tr>
<tr>
<td></td>
<td></td>
<td>seam</td>
</tr>
<tr>
<td>96115/98</td>
<td>1998-12-07</td>
<td>Medical gown (staff gown) with adhesive closure</td>
</tr>
<tr>
<td>78124/91</td>
<td>1991-06-03</td>
<td>Surgical gown (staff gown) with raglan sleeve</td>
</tr>
</tbody>
</table>

This is not necessarily to say that interest in new patient gown patents is low in Australia.
Alternate explanations can be given here. While few Australian patents were filed, Australia
is not excluded from making use of international patents, which would suggest that interest
might exist within Australia for adoption of new forms of gown, even if interest was low for
designing such items. Multiple patents presented in Table 1 and held by international
corporations are listed under the United States patent code (US). The specific national origin
of patents filed by international patent industries is not noted, potentially accounting for some Australian patents.

Nonetheless, these concessions could be held true of any nation, including those highly represented within the patent list. Consequently, the low level of Australian patents may be seen to support the observation that patient gowns have undergone minimal redesign in the last half-century in the NSW health network and that recognition for any need to reconfigure the artefact has been similarly low.

Industrial design may also provide its own explanation for the absence of artefact redesign in Australia. Dreyfuss describes the role of the industrial designer as follows:

When we are summoned by a potential client, whether president, vice-vice president, or engineer, and he outlines the problems, we make certain, before accepting, we can contribute positively to his product. Sometimes we must decline the assignment because materials or other limitations would constrict us to the point where we could not be of real aid. Or perhaps the product, in our opinion may be so generically excellent that design would be gilding the lily.202

Low interest in redesign need not necessarily be dictated by the industrial designer, rather by the potential client who, rather than using Dreyfuss’ assortment of categories can be simplified here as the user. While nurses and patients have been noted as highly critical of the patient gown’s current form, minimal changes have been made to the gown’s structural design, lending support to the argument that neither patients nor nurses alone constitute the gown’s user. This, then, leads to a consideration of alternative categories of the user such as physicians or clinic administrators. This will be further elaborated upon below. Rather than focus solely on usage, attention will be paid to the materialisation of institutional norms in the form of the patient gown.

202 Dreyfuss, Designing for People, 42.
Returning to the Dreyfuss’ argument that industrial designers ought not elaborate on ‘generically excellent design’, industrial designers can also be singled out as stagnating the redesign of the artefact by considering the gown from their own partial perspective and with their own understanding of the gown’s appropriate use and user. This cannot, however, be determined on the basis of patents only and further research needs to be conducted with industrial designers in the specific field of clinical care.

What is clearly visible is the contrast between nursing and industrial design in the designation of appropriate candidates for the category of users of patient gowns. Nursing has pointed to the patient as the user of the gown and, in doing so, emphasised patients’ interests as essential in the development of gowns. Industrial design, on the other hand, has rejected such a claim in two ways. Not only is the patient disregarded as a significant user group (or at the least, considered a particularly passive user), the very notion that users ought to be considered in the development of an artefact appears to have been substituted in preference of allowing artefacts to dictate their own users. Another critique of industrial design and its approach to users is possible: that of user studies in the field of science and technology studies.

### 3.3. Coat of Many Colours

**Reconsidering User Categories in Light of the Patient Gown**

Industrial design and science and technology studies approach the notion of users from diametrically opposed directions. Industrial design, as has been shown above, has emphasised that designed technologies select their own users. From the STS perspective, such an argument places the cart before the horse. Rather, users participate in the development of technologies as agents of technological change.\(^2\)\(^0\)\(^3\) This is not to say that the user in science and technology studies is a well-defined actor. Oudshoorn and Pinch emphasise that the

---

\(^2\)\(^0\)\(^3\) [Kline and Pinch, “Users as Agents”](#).
appearance of the user alters according to the particular viewing position taken. The term ‘user’ takes on different meaning when observed under SCOT approaches, feminist approaches, semiotic approaches, or cultural and media approaches.\textsuperscript{204} As such, we can consider the user, like technology, to be a product of the context to which they belong. What is of greatest concern, in regard to the user, is how we claim to identify lead users in relation to the patient gown. Current conceptions of the user within science and technology studies do not align with the use, development, or production of the patient gown. What is emphasised by the gown is the need to reconsider existing categorisations of user.

In his study of user categories and concerns in science and technology studies, STS scholar Torben Jensen, argues that the user can be summarised into three overarching conceptualisations. The first of these is the pragmatist view of the user, under which meaning is gained by observing the situated actions of users in relation to a given technology.\textsuperscript{205} Second is the user in socio-historical construction of technology, where key actors and events are emphasised within historical timelines in order to map the processes of configuration and stabilisation of technologies.\textsuperscript{206} The final conceptualisation provided by Jensen is the user under material-semiotic approaches, in which user and technology are co-configured.\textsuperscript{207} While Jensen’s conceptualisations do much to demonstrate previous approaches to user, they do little to define the user at hand. To simplify the task of identifying the user here, a broad definition is developed from the inversion of the premise provided by Oudshoorn and Pinch to their text on users: “We are interested in how users consume, modify, domesticate, design, reconfigure, and resist technologies.”\textsuperscript{208} From this, a lead user is an individual who consumes, modifies, domesticates, designs, reconfigures, and resists technologies.

Traditionally, discussions of hospital gowns place patients in the position of lead user. In

\textsuperscript{204} Oudshoorn and Pinch, \textit{How Users Matter}, 311.
\textsuperscript{206} Ibid., 20
\textsuperscript{207} Ibid
\textsuperscript{208} Ibid., 1.
identifying the expected user group for the development of a new kind of hospital gown, Cho highlights two groups: the patient and medical personnel.\textsuperscript{209} Nonetheless, in establishing target groups for gown functionality, Cho’s work focuses almost solely on patients.\textsuperscript{210} Similarly, nursing literature, as has been shown, places the patient in the position of lead user of the patient gown, while simultaneously demonstrating that patients are far removed from the potential to modify, domesticate, reconfigure, design, or resist the technology. It is difficult to pinpoint how patients make use of the gown. While patients wear the patient gown, they do not select such uniforms for themselves, regardless of their willingness or unwillingness to take part in this dressing. While patients can be argued, to an extent, to consume the gown in donning patient gowns, what is more frequently emphasised by nursing accounts of clinical environments, is that patients are configured by the gown and its embedded associations and implications. With this in mind, any patient use of the patient gown indicates the presence of a second category of user, one that employs the gown in the dressing or patients, inviting a return to Cho’s second candidate to gown user: medical staff. This is not to suggest that the patient becomes irrelevant in an evaluation of users, but rather that multiple users need to be considered here.

Gowns, when used by physicians and nursing staff, constitute a tool through which particular social-political structures within patient care facilities can be established. The gown, then, is the primary form of marshalling patients within the hospital; it is the common denominator to all patients and ailments. Medical staff can use gowns to build a particular kind of patient and shape a particular kind of healthcare environment. The means by which this is done extends beyond the immediate expectations of gown function by branching into Foucauldian notions of discipline, and the combined iterations of performativity of Derrida, Butler, Goffman, and Pickering – as was argued in the preceding chapter.

Feminist approaches within science and technology studies have drawn attention to dynamics

\textsuperscript{209} Cho, “Redesigning Hospital Gowns”, 332.
\textsuperscript{210} Ibid., 336-346.
of power in the development, dissemination, and response to technologies. Furthermore, such approaches have emphasised that approaches that focus on design and production of technology exclude the role of women as innovators. The development of technologies and the mastering of technologies have been associated with men, and, by focusing on development and mastering, an exclusively masculine image of technology has been formed. Refocusing attention towards the use of the gown provides a place for women in technology studies. The importance and value of feminist approaches in science and technology studies is not being questioned here. However, in the case of the patient gown, focusing on the use of technology becomes a troublesome exercise. The predominant use of the technology at hand is poorly defined and the patient gown appears to have different uses for different categories of users.

Considering each use of the patient gown is also problematic. Where patients can be argued to use gowns to protect and cover their bodies from observation, physicians utilise the gown in the exposure of bodies for that self-same observation. Unlike Kline and Pinch’s case of the automobile, described in the review of literature, what is seen in the gown is not the reconfiguration of the artefact to reflect particular user interests, but a complete lack of reconfiguration, a stagnation of the artefact’s form. When reconfiguration is not taking place, it is difficult to make any claim towards lead user. Any claim here would also risk ascribing interests to a user group.

Despite the many criticisms heaped upon the patient gown, the artefact maintains a level of obduracy. A recent trend has emerged for patient groups and individuals who consider themselves “former patients” to take charge of their own hospital garments. Websites dedicated to the discussion of problems associated with the patient gown and to the production and sale of sewing patterns and premade patient gown alternatives have increased in the last decade. What would be expected here is a gown that addresses the degrading

features of the existing gown. Nonetheless, the trend among such sites is to present new, more “patient friendly” forms of the patient gown that retain many of the heavily criticised features of the presently used gown. Features such as the open back of the gown, the gown’s length, and the unisex character of the garment often remain the same in these patient-proposed gowns, reflecting a similar image to the considerations of new patents presented above. The greatest variations in gown design in patient-proposed gowns take place at the level of textile choice and in making a distinction between general patient gowns and maternity-specific patient gowns. The website \url{http://www.gownies.com} (hereafter gownies) presents twenty-three different patient gown options that vary, largely, only at the level of textile print. The point of focus here is on personalising the garment, emphasising that a troublesome feature of the gown from the perspective of patients may lie less in its effect of exposing patient bodies and more in its homogenisation of identities. This is reflected in the content of the gownies site which includes, in its statement of purpose, the promise that “gownies are made from 100% cotton and completely machine washable, and come in a variety of stylish designs and colors. Good-bye drab and Hello Fab!” and “so whether you are about to deliver your first baby, recovering at home, facing chemotherapy or radiation, surgery, or if you are being admitted into a long term care nursing home, Gownies can keep you looking stylish, feeling better, keep you covered, and provide you with the comfort and ease that is required in the hospital setting”. In addition, each available gown on the site is tied to an individual female name, and each name is tied to its own unique “personality”. Selecting any two gowns (such as the ‘Nicole’, a light blue gown with green trim and white polka dot print, with the product description “What girls don’t love dots! (…) It’s simple but so trendy print is a no fail option to wow the hospital ward” and ‘Phoebe’, a floral print gown with the description “A glamor girls dream”) presents different textile pattern and character traits, but an identical dress pattern.

The focus on women as the leading audience for new gown designs is a recurring theme. The Wall Street Journal website ties the criticisms heaped upon the patient gown to poor sartorial choices, with the title “The Hospital Gown, Fashion Malady, Worries Would-Be Redesigners Sick”.213 The article presents a number of alternative gowns, all described in terms of their applicability to female patients. Similarly, the website for the magazine Elle presents an article titled “Diane Von Furstenberg makes Hospital Gowns in Cleveland”, and summarises the article by suggesting that donning more fashionable patient gowns would be an action akin to administering treatment, stating “now their patients get to wear wrap style gowns covered in DvF’s signature vintage prints incorporating the clinic’s logo. Feel better already?”214

3.4. Conclusions

Having argued for a more expansive category of lead user, what we are left with are three candidates for a user of the patient gown, each with distinct interests, and each presenting a unique idea of purpose for the patient gown. From the perspective of the industrial designer, the patient gown is not a product subject to the interests of any particular user, but a fully formed object with its own script for intended use. Users who reconfigure the patient gown, in this account, are better considered to be misusers and, consequently, aberrations to be excluded from a study of the efficacy of the artefact. Here the user of the patient gown can be considered to be an imaginary of an obliging patient, in accordance with what the industrial designer deems an obliging patient to be. This has been shown to be a particularly troublesome definition when drawn into concert with the considerations of user studies and technology studies, nursing accounts of patient interests, and patients own accounts in the

form of online message boards. Online participation from patients, conversely, has
demonstrated that patients do consider themselves to be in a position allowing for the
redesign of the artefact. The obduracy of the currently used patient gown, then, is not
necessarily a reflection of lack of interest or engagement from this user group but rather
engagement outside of the specific boundaries of the clinic. Combining these accounts with
the arguments of the previous chapter, we can introduce the third candidate for user; medical
staff utilising the gown for the construction of a patient primed for treatment. That the patient
gown is problematic to patients is an entirely discrete issue to the gown as useful to medical
staff since the gown means different things to each group. Rather than seek out a lead user
amongst these competing categories, the gown can be seen as a fundamentally different object
across each user group. If we take this approach then we can consider the gown to be above
any claims of ‘effective’ or ‘ineffective’, or ‘good’ or ‘bad’.
Chapter Four

Conclusion

Professor of science and technology studies, Anique Hommels, argues for the consideration of the obduracy and stability of technologies as equally important to the consideration of technological development and change.\textsuperscript{215} For Hommels the prime example of such obduracy is found in cities. This obduracy derives from the combination of fixed social definitions of cities, the heavily embedded relationships between cities and the components of their sociotechnical networks, and their enduring archetypes and traditions.\textsuperscript{216}

That cities have achieved a stable state is only sensible. As large-scale, solid infrastructures, cities draw in and moderate a vast number of different actors and different technological systems. In a sense, cities are protected from reconfiguration by the sheer inconvenience of technological upheaval. While the patient gown does not take on the grand physical scale of a city, mundane artefacts like the patient gown carry heavily embedded relationships of their own, occupying a role in a vast network that connects patients, physicians, nurses, clinics, practices, and social imaginaries relating to all of the preceding. The invisibility and ubiquity of mundane artefacts allows for the development of intricate and tightly woven networks between groups of actors, objects, and enduring archetypes, traditions, and performances. Where cities are protected from reconfiguration by virtue of their physical scale, mundane artefacts are presented here as similarly protected as a consequence of their inextricable relationship with day-to-day life. To question the endurance of the patient gown in the clinic, we would also need to question the clinic as a single unit in a broader social network.

While attention has been set squarely in this thesis on the patient gown in the specific network of the clinic, a bigger claim has also been made: that mundane artefacts as a category of

\textsuperscript{216} Ibid., 331-338.
technologies play a unique and oftentimes instrumental role in the assignment of behavioural repertoires – ones that can be better understood by understanding mechanisms of social performance.

To understand the role and obduracy of the patient gown in the clinic, the artefact has been considered from the positions of user groups and user mediated redesign, industrial design practice, and nursing interests, all set in a broader consideration of performance, role ascription, and discipline of bodies. In taking this faceted approach, it has been reemphasised that the patient gown does not hold any single formal function, lead user, or definition. Rather, the gown exists in a way that structures engagements within the clinic, between the clinic and the external world, and between an individual and themselves.

If we return to the initial question ‘what is the function of the patient gown within the clinic, such that it has received little redesign in the face of high levels of criticism’ we can now formulate a response. The patient gown is a mundane artefact of the clinic that holds different meanings to different user groups with a common denominator in the practices of the clinic. In short, the patient gown is a symbol of the clinic and an institutional norm, which carries different meanings for different actors, situating each of these actors in the stage of the clinic.

To do so, the gown is engaged in processes of bodily discipline and role ascription that are required in a system of healthcare that applies standardised practices to varied individual bodies. This has been shown to be both damaging to patient sense of self and essential to patient self-care.

Social performance has been raised here as an explanation of the mechanism behind social encounters. Beginning with a consideration of performativity, what has been drawn to the fore has been the mechanism of social events, how these events are produced, and how they are given meaning. Such events are structured around an exchange of rhetorical objects, which embody particular ideas and ways of thinking. In the instance of the patient gown, what has been proposed is that more than a tool in the processes of the clinic, the gown is an
instruction manual of the clinic, communicating ideas about clinical hierarchy and patient roles. Returning to Hommels’ account of obduracy, in the cityscape that is the clinic we can understand the unchanging patient gown as the traffic guard of medical care, employing signs, gestures, and flags to position human actors in order to instruct the flow and practice of our existing clinical practices.

The gown as both mediator and symbol is reaffirmed by interview data collected from medical staff and patients. The gown, as it is presented in these interviews, serves an obvious function, learned, it seems, from the social ether. Further, the contrast of patents against industrial design emphasise that when designing for the day to day, single users and single functions become difficult to define.

Avenues for further research have also been identified. The origin of the patient gown, the social and clinical values that existed at the time of its generation, and the design intentions of its original patent are all yet to be determined. In addition, considering the patient gown from the position of female, Islamic patients would also shed much needed light on how the experiences of the clinic can hold lasting consequences for individuals in their social world and their sense of self in their broader spiritual worldview. Finally, what has been introduced within this thesis and what is hoped will be encouraged by the work is a turn to mundane artefacts as worthwhile and important objects of study. An approach that focuses in on mundane artefacts offers the unique opportunity to explore the theoretical categories that inform our daily lives. Such an approach could be applied to professional groups, subcultures, and cultural groups – as has been shown within the thesis in the case of physicians, nurses, and, to a more minor extent, female patients of a specific cultural sphere. Indeed, such an approach would also lend itself to more fundamental categories such as gender, ethnicity, and individual identity, in order to ask how these categories are formed and maintained in reciprocal interactions with the surrounding world inside the clinic and far beyond the clinic walls.
Appendix 1

Sahar Tavakoli
sahar.tavakoli@sydney.edu
Department of History and Philosophy of Science
MSc Candidate

Background:

Technologies hold an inextricable position in present societies. While much attention has been given to technologies and the roles they play in social interaction, such studies have held an innovation-centric view of technologies, investigating such technologies as mobile phones, radio telescopes, and military technologies.

Ignoring the position of mundane artefacts (such as pens, clothing, and cutlery) in social analysis of everyday life is to tell an incomplete story. Similarly, an innovation-centric view excludes a social understanding of the developing and third world. These places are neither void of technology, nor are they lacking in innovation, rather, mundane technologies are repurposed here.

This project returns to mundane technologies by investigating the function of a single mundane technology (the patient-worn, back tying hospital gown) in the social stratification of hospital settings. In doing so, the project will bridge methods and approaches from the fields of History and Philosophy of Science with Science and Technology Studies.

Please note that it is not necessary to answer any questions that you feel uncomfortable answering. These surveys are anonymous and hard copies will be destroyed after July 31, 2015.

Q1. Who wears the back-tying hospital gown?

Q2. Is wearing the hospital gown compulsory?
Q3. Who places such individuals in hospital gowns?

Q4. What do you think the purpose of the hospital gown is?

Q5. Do patients ever make comments on the hospital gown and, if so, what kinds of comments do patients make?

Q6. Was the purpose or function of the hospital gown mentioned in your tertiary training, and, if so, what kinds of comments were made?
Q7. Do you notice a change in patient demeanour between patients in and out of hospital gowns?

Q8. Are there any further comments that you would like to make in regard to the patient hospital gown?


http://www.wsj.com/articles/SB124199135515304615#.


Lucas, Maria, “Hospital Gown for Breast Radiation Treatments,” accessed: August 30, 2015,


Pinch, Trevor, “The Invisible Technologies of Goffman’s Sociology From the Merry-Go-Round to the Internet.”


