

Studying the Transformation of a Social Representation
The Case of Physicians in Televised Media

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Thesis submitted to the
Faculty of Graduate and Postdoctoral Studies
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Sociology

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Abstract

This thesis presents a methodology for, and a case study of, the transformation of a social representation. The basis of the thesis is derived from an understanding of representations as a complex, dynamic, pluralistic phenomena that both exist in time and draw their form and meaning from past and present knowledge(s). We are guided by an interest in understanding how one might study a social representation that is already an entrenched social phenomena and how one might go about studying such an entity in a systematic fashion over time. We devised a method through which data can be aggregated over a bound, measurable unit of time and analyzed systematically into core and peripheral systems, allowing for the study of transformation of representation of long duration. Our methodology thus embeds social representations in particular historical, temporal moments in order to assess the structural formation of the representation.

Making visible subtle changes over time, detailed enough to capture shifts in the structure of the representation required a methodology that allowed us to access representations as they existed in the past. Our methodology embeds social representations in particular historical moments to assess the structural stability of the representational field and provides a means through which the historic aspect of a social representation can be examined. It allows us to look into the past, capturing the dynamic nature of a social representation, but is not limited by memory or the influence of current representations. The use of data collection through

observation and the application of thematic and multidimensional scaling analysis facilitate the identification of core and peripheral systems and the ability to track changes to these systems over time. A methodology that offers access to social representations in the past, as ours does, opens the possibility of further studying the sociogenesis of representations, their historicity, and their temporality.

To assess the applicability of our methodology, we undertook a study of the social representation of physicians in televised medical dramas. The case of the physician was selected because of their existence as a known social phenomenon of long-duration with a prominent, continuous social presence. In our exploration of this case, we sought to answer two questions. The first asks, 'what is the social representation of the physician as presented in televised medical dramas', while the second queries is 'if and how this social representation has changed over time'. We present thus not only the identification and transformation of a representation, that of the physician, but we also offer a methodology with which to do so.

To answer our questions, we work from the basis that social representations that exist in the past are both knowable and classifiable. A structuralist perspective of social representations, allowing for the identification of the elements forming the structure of the representation, in addition to the content and meaning. Our case study demonstrates that not only can social representations be identified using televised media, but that it is a feasible means through which to assess the change in a representation over time. We show that there have indeed been changes within the social representation of physicians as presented in televised media, but that the most significant change occurred in the peripheral system, that it happened early,

and that the overall meaning of the representation has remained the same over time. This suggests that changes in social representations may not necessarily be visible without the use of a structuralist perspective and that regardless of the content of a representation, subtle changes to the structure may not be revealed without the study of its structure.

Our methodology demonstrates that exploring representations in the past as a way to study the transformation of social representation has potential to generate new knowledge about old things. While the study of newly emerging phenomena presents an ideal time to study social representations, the study of older representations offers the opportunity to better understand how knowledge is created, changed, and re-created.

Résumé

Cette thèse présente une méthodologie pour, et une étude de la transformation d'une représentation sociale. La thèse est basée sur une conception des représentations sociales comme un phénomène complexe, dynamique, et pluraliste, qui existe dans le temps et dont la forme résulte des connaissances passées et présentes. Nous visons à comprendre comment il est possible d'étudier une représentation sociale qui existe déjà comme phénomène social bien établi, et comment étudier une telle entité de façon systématique dans le temps. Nous avons élaboré une méthode par laquelle les données peuvent être regroupées sur une unité temporelle mesurable et analysées systématiquement dans des catégories, soit le noyau ou la périphérie des représentations sociales, permettant ainsi l'étude de la transformation d'une représentation de longue durée. Notre méthodologie intègre ainsi les représentations sociales dans des moments historiques afin d'évaluer la formation et la transformation de la structure de la représentation.

Pour évaluer l'applicabilité de notre méthodologie, nous avons entrepris une étude des représentations sociales des médecins dans les séries télévisées. Le cas des représentations des médecins a été choisi en raison de son existence en tant que phénomène social bien connu et de longue durée. Dans notre exploration de ce cas, nous avons cherché à répondre à deux questions. La première vise à identifier «quelle est la représentation sociale du médecin présentée dans les séries « médicales » télévisées et la seconde cherche à savoir « si et

comment, cette représentation sociale a changé au fil du temps ». Nous présentons donc non seulement l'identification et la transformation d'une représentation, celle du médecin, mais nous offrons également une méthodologie pour le faire.

Pour répondre à ces questions, nous travaillons à partir de la conception que les représentations sociales qui existent dans le passé sont à la fois connaissables et classifiables. La perspective structuraliste des représentations sociales permet l'identification des éléments qui structurent la représentation en plus de mettre à jour son contenu et sa signification, offrant la possibilité de comprendre ses transformations. Notre étude de cas montre non seulement que les représentations sociales peuvent être identifiées en utilisant les médias télévisés, mais aussi que la méthodologie développée permet d'apprécier le changement d'une représentation dans le temps. Nous montrons qu'il y a effectivement eu des changements au sein des représentations sociales des médecins telles que présentées dans les médias télévisés, et que le changement le plus important a eu lieu dans le système périphérique, que cela s'est passé au début de la période observée, et que le sens global de la représentation est demeuré le même au fil du temps. Ceci suggère que des changements subtils dans les représentations sociales peuvent ne pas nécessairement être visibles sans l'utilisation d'une approche d'analyse fine telle que la perspective structuraliste et, quel que soit le contenu d'une représentation, des changements subtils de la structure ne peuvent pas être identifiés sans l'étude de sa structure.

Accéder au contenu des représentations d'une façon suffisamment détaillée pour identifier les changements dans la structure de la représentation au fil du temps nécessite une méthodologie qui nous permet de décrire les représentations telles qu'elles existaient dans le passé. Notre

méthodologie intègre les représentations sociales dans des moments historiques pour évaluer la stabilité de la structure du champ de la représentation et fournit un moyen par lequel l'aspect historique de la représentation sociale peut être examiné. Elle nous permet de regarder dans le passé, de saisir la nature dynamique d'une représentation sociale, tout en écartant les limites imposées par la mémoire ou l'influence des représentations actuelles. L'utilisation de la collecte de données par l'observation et l'application de l'analyse d'échelle thématique et multidimensionnelle facilite l'identification des systèmes du noyau et de la périphérie et nous permet de suivre l'évolution de ces systèmes au fil du temps. Une méthode qui offre un accès à des représentations sociales dans le passé, comme la nôtre, ouvre la possibilité d'étudier la sociogenèse des représentations, leur historicité, et leur temporalité.

Notre méthodologie démontre que l'exploration des représentations dans le passé comme moyen d'étudier la transformation d'une représentation sociale a le potentiel de générer de nouvelles connaissances sur les choses anciennes. Bien que l'étude des phénomènes émergents présente un moment idéal pour étudier les représentations sociales, l'étude des représentations anciennes offre la possibilité de mieux comprendre comment les connaissances sont créés, modifiées, et recréés.

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Acknowledgements

A doctoral degree is a long and arduous process. Although some find it to be a solitary undertaking, many have contributed to the making of mine and I would like to take this opportunity to briefly thank those who helped make completing this possible.

I would like to thank my thesis supervisor and mentor, Maurice Lévesque, for setting me on the right path, keeping me upright, and helping me to bring this project to a close. It is a rare person that you can both begrudge for being so demanding, while also being eternally grateful that they are so. I have been very lucky to have such a supportive supervisor.

While many leave thanking their partners until the end, I would like to thank my husband with the same weight that I thank my supervisor, for in truth, without either of them, this work would not be what it is and I would not be who I am. I would like to thank Mike who financially supported this PhD, who gave unwavering support, and perhaps most importantly, who supported the option of walking away from this endeavour entirely, if I had wanted to.

I gratefully thank the Social Sciences and Humanities Research Council of Canada (SSHRC) for financing this project through their Joseph-Armand Bombardier Doctoral Awards.

The participation of Willow Scobie and Linda Pietrantonio on several of my committees throughout the doctoral process has greatly benefitted this project.

Finally, I would like to thank those who have kept me company throughout this process. Friends and family who were patient and understanding and those dear friends who plodded along their own paths of academia, always willing to encourage and commiserate.

In memory of Dr. Karen Richter. The first person to suggest I should do a Ph.D. and who honestly believed I was clever enough to do so. A memory that still lingers clearly, even years later.

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Introduction

This dissertation is both a methodology for and a study of the transformation of social representations. At its most basic, it seeks to study the transformation of a social representation by looking at a representation as it has existed over several decades. Questions that have guided its conceptualization are focused around how one might study a social representation that is already an entrenched social phenomena and how one might go about doing so in a way that facilitates the study of its transformation over time. In this way, we sought to explore the development of a feasible methodology that would allow for the exploration of a social representation over time, most particularly, how one might go about doing research with social representations in the past to facilitate an analysis of progressive transformations of a representation. This dissertation is thus not simply the identification of a social representation but also of the construction and validation of a methodology, both of which offer something to the current literature on social representations.

Social representation refers both to a theory and a phenomenon. It is a theory in that it provides a way to think about how social knowledges are produced and transformed in the process of communication and social practices (Jovchelovitch, 2007). It is a theory of social knowledge, addressing the construction and transformation of knowledge(s) in society. The interest is particularly in knowledge(s) that are produced in and by everyday life (Jovchelovitch, 2007). It is not just about current knowledge (Duveen & Lloyd, 1990; Jodelet, 1989; Moscovici, 2000), but also about how new knowledge is produced and accommodated in the social fabric (Jodelet, 1984b; Jovchelovitch, 2007) and how knowledge changes (Flament, 1989, 1994c; Guimelli, 1989, 1994b; Guimelli & Jacobi, 1990; Moliner, 2001c). It is also, perhaps more specifically, about the interpretation of knowledge. For example, although crime is at an all-time low in Canada, the representation of this knowledge is different than what scientific 'facts' about crime might suggest.

Social representations are a phenomenon insofar as they refer to the empirical regularities (ideas, values, and practices) of individuals and groups about particular social objects and the processes that produce and reproduce them (Jovchelovitch, 2007). We are interested here in social representations as a phenomenon, in exploring the empirical regularities around a particular social object. This is therefore a study of social representations as a social phenomenon, guided by social representations theory.

Based on our interest in the transformation of social representations and a general interest in methodology, this thesis had the overall goal of developing a methodology to facilitate the systematic study of the transformation of a social representation. A review of the literature

demonstrates that a historical study of social representations is becoming more popular (Bertrand, 2002, 2003; Brondi, Sarrica, Cibi, Neresini, & Contarello, 2012; Chombart de Lauwe, 1971, 1984 ; Sammut, Tsirogianni, & Wagoner, 2012), but also remains an understudied area of social representations research. Our interests lie in the study of social phenomena that are already embedded in society and in the use of televised media as a means through which to access social representations in the past. To assess the applicability of our methodology, we undertook a study of the social representation of physicians in televised medical dramas. Physicians provided an ideal example because of their existence as a known social phenomenon of long-duration with a prominent, continuous social presence.

Our perspective is thus one embedded in the historicity of social representations, their sociogenesis, and their evolution over time. In applying our methodology to our case study, we sought to answer two questions. The first question asks ‘what is the social representation of the physician in televised medical dramas’. The second question asks if and how this social representation has changed over time, in light of the social changes that have taken place in the last century (patient advocacy, health insurance, changing policies and legislations, changing technology).

In response to the first question, we contend that the social representation of the physician is knowable and classifiable. That our perspective on social representations allows for the identification of the elements that make up the structure of the representation, we are able to identify both the content and the meaning of the representation of the physician. We argue that an analysis of the transformation of the social representation of physicians highlights an

important challenge in the study of the transformation of representations in general, and that is the difficulty of accessing representations in the past. Social representations are dynamic entities that are in a continuous state of renegotiation. To undertake a study in which the primary goal is to evaluate change over time requires the development of a methodology that facilitates accessing representations in the past and has the ability to identify the structure of social representations to make visible subtle changes over time when and if they appear. In this light, a key focus of the thesis is to develop a methodology that facilitates the study of representations in the past that would allow us to answer our two research questions.

Using televised medical dramas from 1954 to 2010, we demonstrate that it is possible to access social representations from television media. Our methodology embeds the social representation in particular historical moments and its non-reactive nature of the media allows us to capture the representation as it existed at that time as it is portrayed in televised media. The addition of a structuralist perspective of social representations allows us to identify not only the content and meaning of the representation, but also the underlying structure upon which it is based. The identification of the content and meaning allows us to address our first question, in which we seek to understand the representation of physicians in medical dramas. The subsequent identification of the structure of the representation into its core and peripheral systems allows us to identify the key elements that make up the structure, their relation to each other, and their importance to the representation. These key elements that make up the structure allow us to see if an element has moved within the hierarchy of elements making up the structure of the representation, or alternatively, if a new element has been introduced. The identification of the structure of the representation and the key elements that this comprises

allows us to address our second question, to assess whether or not this representation has changed over time.

The study of representations that we undertake in this thesis attempts to speak to the study of social representation as a whole, with two of our three articles focused on the study of their identification and transformation and the third article interested in mechanisms that serve to create, maintain, and renegotiate representations. In this way, we seek to address recent criticism of those studying social representations has been put forth by de Stefano Menin, *et al.* (2011) who argue that researchers of social representations too often describe a representation rather than exploring its origins. The historicity of social representations is not as common as the study of newly emerging social representations (Washer, 2004, 2005; Washer & Joffe, 2006), the study of current representations (Goodwin et al., 2003; Jodelet, 1991; Joffe & Bettega, 2003; Joffe & Haarhoff, 2002; Morgan, 2009; Morgan, Harrison, Chewing, DiCorcia, & Davis, 2007), or their structure (Abric, 1984, 2001; Flament, 1989). Even among those studying the transformation of social representations (Brondi et al, 2012; Flament, 1984, 1994c, 2001; Guimelli, 1994a, 1994b; Guimelli & Jacobi, 1990; Moliner, 1998, 2001c, 2001d; Sammut et al, 2012), it is uncommon to study the origins of a representation (de Stefano Menin et al, 2011).

We begin this thesis in a broad fashion, with the discussion of social representations and their transformation. The transformation of social representations is a topic of study within the larger framework of social representations that presents numerous challenges to researchers, as will be discussed in chapter 1 and in article 2 (chapter 5). It also speaks to a much less frequently examined topic within the study of social representations, that of the sociogenesis

and transformation of a social knowledge (Bôas, 2010). The third article (chapter 6) links back to the findings of our first article (chapter 4) and examines the relationship between professional habitus, practices, space, and capital. It explores the ways in which space and capital are modalities upon which the formation of social representations occur, with strategies of differentiation between groups occurring similarly in televised medical dramas as they do in reality.

Organization of the Thesis

The main body of this work consists in contextualizing our study, a methodological discussion, the presentation of our empirical results, and final concluding thoughts. The theoretical work is propounded in Chapter 2, and is expanded upon in Chapters 3, 4, and 5, as it relates to each particular article. In Chapter 2 we seek to contextualize the study by presenting an overview of the study of social representations and their transformation. We outline the study of social representations as both a theory and a phenomenon and describe the ways in which they transform and are changed and maintained over time. We justify our selection and use of televised media as a source through which to access social representations in the past, outlining the ways in which media serves not only as a means to access representations that reflect those dominant in society, but as a non-reactive source through which change might be explored. Finally, we explain our choice of physician as a social object and demonstrate that it is an appropriate choice as the case upon which this thesis is built, and through which we were able to develop and test our methodology.

This chapter is followed by our *Methodological Framework*, chapter 3, in which we present our methodologies and research methods in detail. We explain our data collection and analysis techniques, describe our sample, and provide excerpts from our field notes, coding schemes, and thematic categories. The methodology developed for, and tested in this thesis, reveals a feasible process for accessing social representations in the past. By engaging with social representations, we are able to identify the structure and content of the social representation of physicians in televised media, assess its transformation over time, and further analyze the observational data to speak to aspects affecting the formation and maintenance of social representations. The methodological emphasis is on the thematic categorization of observational data and the content and meaning of these data.

The findings of the thesis are presented in article format, with three articles speaking to our research objectives for this particular study. That the empirical results are presented in article format necessitates the inclusion of some repetition throughout. We have, however, sought to keep this to a minimum as much as possible.

The first article, *Social Representations of Physicians in Medical Dramas: A Study of the Transformation of a Representation*, chapter 4, explores the transformation of the social representation of physicians using televised media as a means to identify representations in the past. Our analysis is based on findings from an observational study of medical dramas televised in North America from 1954 to 2010. We follow the representation of the physician, presented as characters in televised medical dramas, to identify the social representation of physicians and to compare its evolution and transformation over time. Following a structuralist

perspective, we identify the core and peripheral elements that compose the representation, facilitating a comparison over time to determine if there has been a change structure or meaning. Results from this article suggest that the study of change via social representations may be more complicated than initially thought, supporting the use of a structuralist perspective to access the subtle changes to a representation only visible in the peripheral system.

This article is complemented by our second article, *A Method for Studying the Transformation of a Social Representation*, chapter 5. Our interest in the transformation of social representations offered the opportunity to begin exploring how one might access representations in the past to allow for the study of the evolution of social representations in a systematic way. Non-reactive sources, like television, books, magazines, were determined to be viable sources and as our first article demonstrates, television was determined to be a suitable and feasible source through which to access social representations in the past. More specifically, this article discusses the design of a methodology to access social representations in the past, outlining the approach needed to standardize and account for the dynamic nature of representations. We embed the representation in bounded, historical moments and when combine with a structuralist perspective of representations, we are able to identify the structural elements of representations and their hierarchy, allowing researchers to evaluate the change of core and peripheral systems over time.

Our third and final article, *The Role of Space in the Reproduction of the Roles of Medical Professionals: Some Initial Considerations*, chapter 6, offers a different approach to the study of social representations in the way it seeks to explore some of the modalities through which

representations are formed and maintained. The article seeks to examine the spatiality of professional practices and interactions of health care practitioners to begin a discussion of the (re)production of professional roles and their relation to space and capital. The findings are divided into two sections, one that explores the spatial contextualization of work, being at once a context for interaction, a script for action, and a mediator for the classification of individuals (patients, physicians, etc.) that can reinforce professional hierarchy, and a second section that focuses on the spatial contextualizations of practices and interactions working under the premise that the reinforcement of professional hierarchy should, following Bourdieu, be visible in the practices and interactions of professionals.

These three articles, when taken together, illustrate that our research project is both a methodology for and the study of the transformation of a social representation. Throughout the course of these articles, we are able to contribute to sociological literature on the transformation of social representations, present the case of a social representation that has yet to be studied, and speak to the formation and maintenance of representations by examining the social factors that affect their ongoing negotiation in the interactions and practices of health care professionals.

Our final chapter, the conclusion, seeks to provide an overall synthesis of the document, contextualizing it within current sociological literature, noting its sociological contributions, and suggesting further use of the methodology. A full bibliography and appendix follow.

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Contextualizing the Study of Social Representations of Physicians

Social Representations

[Social representations are a] set of concepts and explanations originating in daily life in the course of inter-individual communications. They are the equivalent, in our society, of the myths and belief systems in traditional societies; they might even be said to be the contemporary version of common sense (Moscovici, 1981, p. 181).

[Social representations are] systems of values, ideas and practices with a two-fold function: first to establish an order which will enable individuals to orient themselves in and master their material world and second, to facilitate communication among members of a community by providing them with a code for naming and classifying the various aspects of their world and their individual and group history (Moscovici, 1973, p. xiii).

Moscovici's writings on social representations, while expansive, are also broad and general, rather than providing a clear impression of his theoretical thinking and empirical concerns (Purkhardt 1993). Indeed, one of the common criticisms of social representations theory is that a clear definition of social representations is lacking (Billig, 1988; Jahoda, 1988; McKinlay & Potter, 1987; Potter, 1996). A criticism refuted by those like Howarth (2006) and Purkhardt (1993) who argue that there are clear definitions to be found in the literature.

If we consider the definitions offered at the opening of this chapter, we can see that social representations can be said to describe a social reality constructed through interactions and communications regarding the social and physical world. They are structures that provide collectivities with shared meanings for understanding and communicating (Duveen & Lloyd, 1986). They form an “environment of thought” influencing the way in which we conceptualize of reality and directing our actions, determining how we see the world and how we act (Purkhardt, 1993). They are also simultaneously determined by the interaction and communication that they influence. Here knowledge is based not only in personal experience, but is also influenced by information and cognitive models that are transmitted through culture and education. They are both a product and a process through which individuals or groups reconstitute reality and attribute to it a particular significance (J.-C. Abric, 1994). In this way, representations are practical and functional. They offer the means through which people can make sense of behaviours and understand reality through particular systems of reference (J.-C. Abric, 1994).

Social representations, following Moscovici, were derived from Durkheim’s work on collective representations, which referred to habitual, shared beliefs, sentiments, and ideas held by a community (Jovchelovitch, 2007). They were considered to be pre-established, accepted without scrutiny, overriding individual consciousness, and providing the moral framework against which all members of a community act (Durkheim, 1996 [1898]). Moscovici’s adaptation of the concept emphasized the symbolic relationships at play in modern societies, heavily influenced by science, by increasing interactions and means of communication, and by increasing social plurality and mobility (Mogos, 2009). Most particularly, Moscovici emphasizes

a difference between collective representations, as instruments of explanation as they relate to general ideas and beliefs, and social representations, as phenomena linked to ways of understanding and communicating elements of the social world.

Moscovici argued that Durkheim's theory of collective representations was too general. He disagreed heavily with the notion that representations were transmitted asynchronously, arguing against the notion that representations were resistant to change once transmitted (Voelklein & Howarth, 2005). Moscovici contended that there were ongoing processes in societies influencing the emergence of representations; media and institutions influencing ongoing social processes and intra-society communications were also playing a large role (Moscovici, 1984b). Collective representations could not reflect the mobile and heterogeneous nature of contemporary societies (Howarth 2001). His choice of the word 'social', rather than 'collective' was "meant to indicate that representations are the outcome of an unceasing babble and a permanent dialogue between individuals, a dialogue that is both internal and external, during which individual representations are echoed or complemented.

Representations adapt to the flow of interactions between social groups" (Moscovici, 1984a, p. 951). The term social is a relational attribute that characterizes the relationship between a person and object, event, or phenomenon that constitutes one's reality (Moscovici, 1988). He continues, "[i]t seems to be an aberration, in any case, to consider representations as homogeneous and shared as such by a whole society. What we wished to emphasize by giving up the word collective was this plurality of representations and their diversity within a group" (Moscovici, 1988, p. 219). For Moscovici an object is not simply reproduced in the mind of an individual but given life through the "*socio*-cognitive activity of its user that embeds it in a

cultural and historical context. It is not a cognitive process *or* a social process: it is simultaneously both” (Voelklein & Howarth, 2005, p. 11).

Moscovici did find much in the work of Durkheim that did work with his theory of social representations. Moscovici kept several key features, including the ability of representations to constitute an environment, which was derived from their existence as social facts. Durkheim considered collective representations to be external and coercive by relation to individuals and stable over time. Their production through collective action rendered them stable over time, embedding them in the institutions of the communities in which they were found (Jovchelovitch, 2007). Moscovici retained the characteristic of social fact, their material power, and the force of the symbolic environment to resist change, making themselves stable through institutionalization (Jovchelovitch, 2007). Moscovici emphasized the value in undertaking the study of social representations as units of knowledge in-and-of themselves, not as an elementary level or inferior state of knowledge (Jovchelovitch, 2007).

Though Durkheim put the concept of collective representations at the centre of the theory of social knowledge, he has never fully defined the term 'representation' (Pickering, 2000).

Following the French conceptualization of representation, Durkheim would have used it to mean activities of the mind, rather than as defined phenomena (Markovà, 2003). Unlike the English use in which the emphasis is placed on representation as likeness or reproduction, both static in nature (Markovà, 2003), the French use has a dynamic nature, referring to various kinds of activities, such as the production of images, symbols, and signs, as well as graphic demonstrations (Pickering, 2000). In this way, representations are always directed at others: By

"pointing out something to someone, it speaks; and through expressing something to someone, it communicates" (Markovà, 2003, p. 120, paraphrasing Moscovici 1976).

Their embeddedness in historical, political, cultural, and social contexts (Markovà, 2012) and their ability to cue social responses through language, changing or influencing others through their presence in social interactions, make them anything but passive. Regardless of this, one of the primary criticisms of social representations theory is directed at what social representations actually do (Litton & Potter, 1985; Potter, 1999; Wagner, 1998). Much like criticisms of a lack of clarity and definition of terms, the criticism regarding what representations do is also easily addressed by exploring the literature within the field of social representations. Jodelet's (1991) work on madness demonstrated the various ways in which the community differentiated themselves from the perceived threat of madness, their social representations of madness serving to exclude 'the mad'. Joffe and Bettega (2003) explored the social representation of AIDS, illustrating the ways in which the representations are used as a means of resistance for those being othered by their condition. Similarly, Farr and Marcovà (1995) showed how social representations of disability maintain social inequalities. Howarth (2002) studied the social representations of the community of Brixton in the UK. Her work illustrates how people portray those from Brixton as deviant and threatening, maintaining social exclusions across communities. Social representations thus influence our actions, how we explain our actions or the actions of others, and are also contained within and developed through our social actions (Moscovici, 1988) and our social practices (Marcovà, 2000).

We mentioned above that social representations form a symbolic environment of thought and this plays an important role in constructing and shaping reality. Representations “embody and define the experience of reality, determining its boundaries, its significance and its relationships. In this way, reality is both continuous and stable”(Purkhardt, 1993, p. 9).

Representations maintain, at a symbolic level, a certain version of reality that privileges the powerful. As Moscovici argues, social representations form the basis of our social reality (Moscovici, 2000): we convert representations into social reality (Deaux & Philogène, 2001).

Representations do not simply "reflect or inform our reality, but that in doing so they become what reality is intersubjectively agreed to be" (Howarth, 2006, p. 8). The most significant thing here is that different representations compete in their claims to reality and, in doing so, exclude other realities. Since groups have different access to the public sphere and different ways of presenting or contesting claims to 'the real', those who 'win' the battle of meaning (and thus the ability to construct reality) are those individuals and groups whose version of reality are "reified and legitimized as what is socially accepted as 'reality'" (Howarth, 2006, p. 19).

That social representations render the strange familiar is perhaps one of the most popularly stated qualities of representations. The unfamiliar is that which is new. If a previous convention disappears or when a new social phenomena becomes public (like emerging illnesses Washer, 2004, 2005; Washer & Joffe, 2006). These unfamiliar objects, events or concepts must be transformed into the familiar by re-presenting it within the context of our social representations (Purkhardt, 1993). In this way, social representations conventionalize objects, people, or events (Purkhardt, 1993). Their prescriptive nature functions as a norm, a rule of

action, guiding behaviour and action as determined by convention and tradition (Flament, 1994c; Moscovici, 1984b).

Once the object has been anchored, it is assimilated and given a meaning that it lacked in its unfamiliar state. The objectification of the unfamiliar creates an image that can be understood, given meaning, and incorporated into reality (Moscovici, 1984b). To objectify is “to discover the iconic quality of an imprecise idea or being, to reproduce a concept in an image” (Moscovici, 1984b, p. 38). It consists of identifying or constructing an iconic aspect for a new or difficult to grasp concept, theory, or idea (Wagner, Elejabarrieta, & Lahnsteiner, 1995). In this process, ideas are attributed to physical reality and turned into empirical phenomena confirmed by the senses (Wagner et al, 1995). The objectification process has both historical and prescriptive elements. Moscovici argues that it is historical because it is partly the result of earlier objectification processes. The prescriptive nature is one that holds power that cannot be resisted:

Nobody’s mind is free from the effect of the prior conditioning which is imposed by his representations, language, and culture...representations are prescriptive, that is they impose themselves upon us with an irresistible force. This force is a combination of a structure which is present before we have begun to think and of a tradition which decrees what we should think (Moscovici, 1984b, pp. 8-9).

The misinterpretation of this frequently cited quote hinges on his use of the concepts of structure and tradition, a secondary part of the quote which is often left out. Within this context, the strength or the prevalence of social representations and their effects are derived from their ability to be structuring, much like Bourdieu's habitus is a structuring structure

(Bourdieu, 1977b, 1992, 1996). This structuring structure is a "combination of a structure which is present before we have even begun to think, and of a tradition which decrees *what* we should think" (Moscovici, 1984b, p. 7). As Moscovici notes, one of the greatest successes of social representations is their ability to control the reality of today through that of yesterday (Moscovici, 1984b, p. 10) and this is entirely possible because social objects have history. They cannot be a-historical because representations giving them their reality are integrated into the present through past knowledge already acquired (Bertrand, 2003; Rouquette, 1994). Social representations are thus historic, temporal entities, being at once anchored in pre-existing knowledge and influenced by the present. They are both a product and a process (Jodelet, 1984b); a product constituted through content derived from other historical ages and a process in that it is always incomplete, being continually fed into by other content (Bôas, 2010).

Social representations can also be said to *maintain boundaries*, guiding actions and behaviours, defining what is appropriate or unacceptable in particular social situations (J.-C. Abric, 1994). Social representations permit social actors to explain and justify their actions and behaviours. This includes things like behaviour between groups, reinforcing and maintaining the social position of groups (J.-C. Abric, 1994). Here social representations engage in a form of social control via social groups who impress upon their group members the social representations of their group identity during *socialization* (J.-C. Abric, 1994). They form an environment of thought for communications and interactions between groups and create images, values, and beliefs that are mutually accepted by those within a group. These shared meanings of objects and events consolidates the group (Purkhardt, 1993). In this way, social representations can

perpetuate and justify social differentiation, targeting discrimination or maintaining social distance between groups (J.-C. Abric, 1994).

The Transformation of Social Representations

Social representations come from somewhere. They originate, evolve, and sometimes fade away. They possess a point of origin generated through the processes of anchoring (the reduction of unfamiliar ideas to ordinary categories and images, making them familiar) and objectification (the process through which abstract ideas are rendered almost concrete facilitating the transfer of abstract thought to the physical world) (Moscovici, 1984b, p. 29).

Sociogenesis is the process through which social representations are generated and emphasizes the historical dimension of representations. When a new object appears in society or a pre-existing group faces challenges to their representation, the basic conditions for the genesis of a social representation are fulfilled (Garnier, 1999).

The historicity of representations is characterized by the fact that they are (re)created by knowledge derived from current day-to-day experiences, in addition to the reappropriation of knowledge from the past. The reappropriation of this knowledge from the past is likened, by Bôas (2010), to Hobsbawm's invented tradition in the way that invented tradition is meant to represent a set of "practices, normally governed by tacit or openly accepted rules; such practices, of a ritual or symbolic nature, seek to inculcate certain values and norms of behavior through repetition, which automatically implies continuity with regard to the past" (Hobsbawm 1997 in Bôas, 2010, p. 2). This continuity with the past, the reappropriation of it, is flexible and plastic, changing (or not) with each generation. Where generations experience change in the

understanding of pre-existing knowledge and/or historically consolidated meanings of social phenomena, social representations reflect this change (Bôas, 2010). In this way, social representations are a reflection of their time, their meanings drawn on from both the past, while also reshaping the past through present knowledge(s), experience, and expectations. They are thus composed of knowledge from both from a short and long duration.

The historicity of representations accounts for a representation's ability to be both anchored in pre-existing knowledge, learned as it is in relation to the present, and to act in the present as a guide for practices and translator of social reality. The articulation between permanence and change is intrinsic to the historicity of representations, but also to the representation itself. That knowledge is (re)constructed and transformed over time is one of the key elements of social representations. They are mobile concepts that are continuously shaped and re-shaped to fit the perspectives of those developing them (Jodelet, 1991). Dynamic and adaptive, social representations evolve as social reality changes. New representations emerge and old ones disappear (Purkhardt, 1993). Change over time plays an important role in the theory of social representations. Researchers have found that exogenous changes (the introduction of new technology or scientific idea, for example), represents an opportunity to study knowledge in motion (Millstone, 2012). While the idea that a representation is capable of changing, being modified, or reconstructed is not new, studies of their transformation are a relatively recent undertaking. There have been several works in the last twenty years or so that have begun to explore representations in movement (Y. Aissani, 1991; Moliner, Joule, & Flament, 1995; Roussiau & Soubiale 1995) and more recently, studies exploring representations in the past

(Brondi et al, 2012; Sammut et al, 2012), suggesting that there is something there worthwhile studying.

To further discuss the dynamic nature of social representations, we need to first discuss the structuralist approach to social representations and how it makes the process of the transformation of social representations visible to researchers. Based on the work of Abric's (Abric, 1984, 1989, 2001) central nucleus or core/periphery model, at its most basic, it posits that all social representations are formed of a structure containing core and peripheral systems. The centre/core is socially determined and is linked to historical, sociological, and ideological conditions (Molinari & Emiliani, 1996). As Flament states "the central core is not a simple organizing principle, but a structure (in the strong sense of the term) giving meaning to the whole representation, that is, to the numerous peripheral elements, which for their part are negotiable" (Flament, 1994b, p. 104). It organizes the representation and gives it its overall meaning. It is generally stable, resistant to change, and determines the weight and relationship between other elements of the representation.

The elements of the peripheral system allow for individualization and adaptability. It adjusts to social changes and the environment around it, mediating information that would be in contradiction with the core. It allows the integration of different information and practices derived from characteristics of the individuals and their context (Molinari & Emiliani, 1996). They prescribe appropriate behaviours allowing the subject to know what is normal to say or do in given situations. Peripheral elements contain opinions, descriptions, and beliefs about the

representation. They constitute the interface between the core and the concrete situation in which the social representation is developed and operates (J.-C. Abric, 1994).

During phases of relative stability, the social representation can be argued to be rather permanent. This does not overlook the fact that as the social environment evolves, the representation will too, but what it does mean is that the overall core meaning of the representation does not change. Lack of change in the core meaning of the representation, or within the core elements forming the representation, infers a sense of permanence to the representation. This is made possible by the peripheral system that acts as a set of shocks, absorbing conflicting information and adapting and adjust the representation to the current environment. These two key structures of social representations facilitate its ongoing (relative) stability and transformation, but that the permanence of a representation does not actually infer lack of changes, just managed changes that do not affect the overall meaning or the structure of the core of the representation. When the representation begins to undergo changes, unless they are rapid changes incurred through something like a revolution, it is often a slower process in which the change is initially resisted by the core system, but eventually elements are changed, meanings are adjusted, and the representation continues to represent the current meaning, values, etc. of the social groups to which it is relevant. This can also mean that a representation changes for different social groups at different times, perhaps among youth or a professional group first, for example, and that as a result, old and new configurations of the same representation can exist alongside each other.

The transformation of representations is the focus of a theoretical model (Flament 1994) in which Flament proposes to study the evolution of representations by studying the social representation itself, and the factors of its transformation. It is thus a study of 'how and under what conditions do social representations transform'? He suggests that representations transform under three conditions. The first, brutal transformation is a rapid change in the meaning and structure of the representation. A brutal transformation, like a revolution, brings forth immediate changes to social practices that are irreversible and thus a permanent new normal state of affairs. In this new reality it follows that the new practices have become the norm and the representation must change to reflect this (Flament, 1989). The second form of transformation, progressive transformation, is more common, as representations evolve with social changes over time (Moliner, 2001a). Their progressive nature makes them more difficult to identify changes, however, as the shifts occur slowly over time, as elements that were once peripheral become core elements and those that were once core become peripheral or cease to be part of the representation. The third posited form of transformation is that of resisted transformation in which the core of the representation is confronted with changes in practice or conflicting information and the peripheral system integrates them to preserve the meaning of the core. These conflicting practices may lead to changes over time, as in progressive or brutal transformations, but this resisted transformation is largely part of the early stages of all transformations as the core attempts to remain unchanged and the periphery struggles to integrate the conflicting practices or information to allow the representation to remain stable. The challenge with progressive transformations, given their tendency to evolve slowly over time, is thus one of timing. To study the progressive transformation of a social representation

one must arguably possess either the ability to start a longitudinal study with the intention to carry out many years of research or one must develop the ability to access social representations *in the past*, allowing researchers access to social representations as they existed in society prior to current times that would allow an individual to undertake the study of its structure and how it may have changed over time.

Accessing representations in the past is a difficult undertaking that has been attempted by some (Bertrand, 2002, 2003; Chombart de Lauwe, 1971, 1984 ; Chombart de Lauwe & Henry, 1963; Flament, 1996; Guimelli, 1989; Moliner, 1998). While we speak to this in more depth in Article 2, chapter 5, there are distinct limitations to the approaches tried thus far. Studies have been attempted using different generations (Flament, 1996) to compare representations between older and younger generations, the study of adaptive efforts in which individuals must consider a change in practice to preserve the actions that they undertook previously (Guimelli, 1994a), and the examination of life transitions through career milestones (Moliner, 1998) facilitating the identification of a representation both early and later in a professional career, for example. More recently, studies have included a several century exploration of the changes of representations forming the basis of the identity of a community (Sammot et al, 2012) and the representation of an Italian river over three points in time, as pollution regulations were created and put into place (Brondi et al, 2012).

Generally speaking, the greatest challenge is presented through the very nature of social representations being as dynamic and transformative as they are. Accessing representations in the past through human participants is not a systematic or viable method and generally

speaking, those working with representations in the past, except Flament (1996), have chosen to work with other resources. Representations, like everything, are affected by time and would be inevitably influenced by current representations, and those of years prior, in such a way that they would not be able to provide a depiction of the representation as it was. The study of non-reactive sources, as some have done (Bertrand, 2003; Chombart de Lauwe, 1971) or a mixed methods approach (Brondi et al, 2012; Sammut et al, 2012) including things like historic documents, past interviews, and surveys as data collection tools instead insures not only that the representation will not change through the act of being studied, but also that the representation will not be influenced by current representations.

Why Use Media to Understand the Transformation of a Social Representation

The study of social representations as they appear in media serves not only as a means to access representations reflective of those dominant in society, but it also provides a method with which to access social representations of objects that have been in existence for a while. Studying the changes in a social representation over time is one of the primary reasons for having chosen televised media. Televised media provides a medium in which social representations of physicians are preserved, allowing us to access representations of physicians in the past. Their non-reactive nature means that that do not change over time, their representations and meanings remaining the same, regardless of social changes. In this way, not only do representations not change simply by virtue of being studied, but they are also unaffected by more recent or modern social representations of the same object.

The study of mass media, through televised images, is also important because the visual dimension of television can be argued to be one of the ways in which concepts are *objectified*. The visual image makes ideas concrete, turns them into an almost palpable thing. The visual dimension of television has an affinity with the proposed 'iconic' dimension of objectification. While the content of mass media is not necessarily equivalent to that of individual thoughts, their role in the formation and transformation of social representation is not negligible (Joffe & Haarhoff, 2002), making them an important addition to the study of social representations.

As mentioned in article 1, chapter 4, we would be oversimplifying if we claimed to associate the representations presented on television as the only social representation of physicians, given the multiplicity of representations, but televised media does provide access to representations that reflect those representations of the dominant groups in society. Identifying these dominant social representations, as portrayed in televised media, provide us with an opportunity to overcome the methodological challenge of trying to understand something that exists only in the past. We discuss these methodological challenges in article 2, chapter 5, and present an overview of our research methods more generally in the chapter that follows.

Constructing the Object

Initially work on social representations was directed towards understanding the process of how scientific knowledge becomes integrated into the everyday, common sense thinking of laypeople in modern societies (Moscovici, 1976). Indeed, Moscovici's seminal work on social representations sought to analyze how the new science of psychoanalysis was popularized, how

it was communicated in the media, and how this information was distributed among laypeople, becoming part of everyday knowledge in France (Moscovici, 1976).

Since that time, work on social representations have broadened their scope beyond the translation of scientific knowledge into society with researchers like Chombart de Lauwe (1963, 1971, 1984), Jodelet (1989), and Herzlich (1973) who were interested in, and working on, research that focused on social and cultural phenomena. The study of cultural phenomena involves seeking to understand the social representation of a social object. Indeed, as Jodelet (1989) argued, there is no representation without a social object. An object is an entity that is named, given attributes, characteristics, and values, and something that can be discussed and communicated (Wagner, 1998). Flament and Rouquette contend that an object must serve a conceptual function for the group, explaining other phenomena. It must also be a topic of communication and it must be associated with a level of social practices (Flament & Rouquette, 2003).

In explaining the concept of a social object, Wagner gives the example of a book, which is an object if it is named 'book' and if people can describe it with the characteristics we have attributed to books (cover, paper pages, text or pictures as content), and if people can engage in a conversation in which the object is named. These characteristics – the name, attributes, use of name in talk, and behaviour associated with the object (such as checking the book out of a library) – make the entity a social object (Wagner, 1998). It is important to note that while we describe the object of study as a social object to be clear about our terminology, the representation *is* the object it represents and the object that is represented is representation

(Wagner, 1998). Wagner describes speaking of 'the representation of an object' as an "elliptical formulation": the social representation is the reason the object exists and vice versa (Wagner, 1998, p. 308). In this way, the representation substitutes the object it represent, becoming the object itself for the person or group that refers to it (Moscovici, 1976).

Physicians as Social Object

The identification of social objects allows us to relate these concepts to social representations. Moscovici describes social representations as the "elaborating of a social object by the community for the purpose of behaving and communicating" (Moscovici, 1963, p. 251). Our social object of interest in this study is that of the physician. As a social object, the physician is an ideal choice because its representation has durability; it has been present in society for over a hundred years, presenting us with the opportunity to observe a representation and its transformations over a long duration.

A large body of sociological and historical research presents a clear and consistent picture of the growth of modern medicine in North America, most particularly the United States, over the last hundred years. Over the course of the late 1800s, early 1900s, the power and reach of modern physicians grew dramatically. Prior to that time, medical services available were eclectic and pluralistic and undergoing great changes. For those seeking medical care several types of health care were available both in the home (folk remedies, etc.) and 'petty commodity mode' in which health care services could be purchased, for a fee, from allopathically or homeopathically trained physicians (Berliner, 1975; Caplan, 1989). In addition to those physicians, there were also a collective of lay healers, herbal practitioners, artisans,

farmers, working people called the Popular Health Movement (Baer, 1989), Christian healers practicing under Christian Science (Haller, 1981), osteopathy and chiropractics (Baer, 1989). Differences between groups could be considered along the lines of their distinct practices: Allopaths used methods like bloodletting, homeopaths used diluted remedies, sales people concerned themselves with their patented medications¹, and osteopaths and chiropractors had their systems of manipulative therapy (Baer, 1989; Berliner, 1975).

The growth of scientific medicine, what we would now associate with modern medicine, came about through a number of processes, including the exclusion of all other forms of health care practices, collaboration with philanthropic foundations established by well-connected and well-funded industrial capitalists, and growing control over the redefinition of medical education and practice (Berliner, 1975; Caplan, 1989; Hall, 1997; Young, 1961, 1967). A historical review suggests that scientific medicine and its practitioners came into existence when various social agents – physicians, philanthropists, associations, universities, licensing boards (Berliner, 1975, 1983; Caplan, 1989) began to link sites of difference between practicing physicians, patent medicine producers/ salespeople, pharmacists, hospital administrators, industrial capitalists creating a new social space for medicine and beginning the process of re-bounding the profession around a discourse of science. These linkages to create bounded entities is how professional boundaries take shape and are reshaped. In this way, the only means through which social space can be reorganized is to "delegitimize old differences or to emphasize new

¹ These medical elixirs were sold as medical cures that may or may not have worked as promoted. They required no prescription and were not regulated.

ones. The former strategy yokes entities together, the latter divides them" (Abbott, 2001b, p. 273).

The organization of modern scientific medicine involved placing people "within" these boundaries. The various physicians, students, scientists, researchers, and universities involved with scientific modern medicine were placed "within it", while others not identified with scientific medicine were placed outside of it. Among those placed outside of it, some arguably share a boundary with physicians, most particularly pharmacists, nurses, social work, hospital administrators, many of which helped establish modern scientific medicine. This shared boundary can be suggested to link other practitioners to physicians and their scientific medicine, while still keeping their tasks and practices as separate from those of physicians, and also provide these early practitioners with a legitimacy offered only to those connected to modern medicine.

In order to reorganize the social space around healing and curing, allopathic medicine needed to address the problem of those offering such goods and services external to their practice. The delegitimization of most particularly patent medicines, which were incredibly popular and lucrative at the turn of the 1900s (Caplan, 1989), and also homeopathy, chiropractics, osteology, and other non-allopathic means of care facilitated the re-bounding of social space around health care to focus on scientific medicine and its practitioners. Physicians emphasized these boundaries through monopolies like revised (expensive) medical education, medical prescriptions, and distinct ways of dressing such as wearing suits or white coats (Abbott, 1988). The alliances with other professions of the time and with industry capitalists provided

reformers with a form of influence that facilitated ongoing and aggressive lobbying of state and federal levels of governments in favour of scientific medicine (Berliner, 1975).

In this way, not only were internal boundaries renegotiated and drawn, but external boundaries as well. The bounding of the profession of physician within medicine also inevitably affected the bounding of other professions and occupations. Physicians and their allies redefined the internal boundaries of medicine in their favour, but they also redefined the medical landscape around them, creating a legitimate space for other legitimate health care practitioners. These external boundaries, formed by other legitimate health care practitioners, have traditionally been considered to be under the influence of medicine, but serve, at the same time, as a sort of protective space around physicians. To use the language of social representations, physicians have been the core element, the internal boundary of medicine, while the other professions and occupations form the periphery. The periphery benefits from the prestige of physicians and of medicine, but they remain in competition with physicians in the field of practice.

These were thus times of great growth in both success and power for the medical profession in America. The American Medical Association and its allies successfully eradicated the influence of patent medicines. The bounding of scientific medicine and its practitioners did successfully delegitimize the practice of patent medicines and homeopathic medicine. The public increasingly sought to purchase medical services, doubling physician visits per person between 1929 and 1960, illustrating a movement away from domestic health care (Caplan, 1989). During the same time frame, medical expenditures shifted from 3.7% to 6% of each dollar spent on consumer items and real per capita expenditures for medical services from physicians' roles

from \$32 to just over \$70 (Harris, 1964). This time frame became known as the “Golden Age of Doctoring” (McKinlay & Marceau, 2002).

The rise of physicians to such a position of prominence was explained by many through the role of social structures, professionalization, culture, and economics. Sociologists like Larson emphasized the importance of politics and economics in the intentional professionalization of physicians, what she refers to as a ‘professional project’ (Larson, 1977), rather than a manifest destiny attributable modern medicine’s greater efficacy (Lock, 1997; McKinlay & McKinlay, 1977). These sociologists emphasized aspects of power, control, and dominance (Freidson, 1970, 1971; Johnson, 1972 ; Larson, 1977). This power is derived from a number of different places including the institutionalization of a public identity (Freidson, 1970), the monopoly they hold over doing the work that they do (Freidson, 1970; Larson, 1977) and the control over how that work should be done (Freidson, 1973), broad discretionary power (Larson, 1977), expert knowledge (Bell, 1973), the establishment of hierarchies of authority based in expertise, rather than bureaucratic office (Freidson, 1973), and the influence they hold over the public and the government through their expert knowledge.

Freidson (1970) attributed much of this to the establishment of professional dominance and the securing of consulting status. Professional dominance is dependent upon the state, resting on the dependence of professions to be granted a near or quasi-monopoly. Consulting status is a social phenomenon that secured professional status by obtaining the public’s willingness to support and use services (Freidson, 1970). In this way, professional power is both dependent upon state granted monopoly and society’s belief in the need for, and efficacy of, services

rendered. This notion of professional power, though not unchallenged (Derber, 1982; Haug, 1973; Oppenheimer, 1973), is also centred in the possession of knowledge and expertise. Their specialization, generated by professionals who are refining and advancing their knowledge and skills into new applications, creates a knowledge-based hierarchy that elicits a knowledge-based system within organizations (Freidson, 1983). Arguments about increasingly educated clients are seen to have little effect on professions because they too have been continually creating new knowledge, techniques, and complex technologies (Freidson, 1983). Larson (1977) puts forth thoughts that professions are not becoming deskilled, but are instead delegating less skilled tasks to lower paid occupational groups as newer, more complex tasks are introduced to their workloads (Larson, 1977). For Larson, the fact that professional status is subject to change and that it is held in comparison to other groups makes it susceptible to subjective proletarianization (Larson, 1979), but adds that if professions were indeed becoming proletarianized, it was occurring in ways very different from the ways in which workers of the industrial era experienced proletarianization (Larson, 1980).

Hitherto we have concentrated mainly on physicians as a profession and the possession of power that that affords them. Power is often observed in interactions, and thus in the next section we discuss several perspectives on the physician-patient relationship and, following this, the physician relationship with other health care practitioners. We begin by focusing mainly on the relatively structured medical consultation between physicians and patients.

Physicians and their Patient

The medical profession organizes its activities around a notion of dysfunctional biology (Curricaburu & Ménoret, 2004). The practice of diagnosis is a process of creating linkages between patient supplied symptoms and physician knowledge. A person is considered unwell when their symptoms match up with those of a known ailment and indicate an 'abnormality' (Curricaburu & Ménoret, 2004). In this way, it can be said that illness is a form of social deviance, while the disease is a form of biological deviance. It is within this framework that researchers have examined the roles and interactions between physicians and their patients.

In Parsons' (1951) influential role theory, physicians and patients perform certain functional role obligations in society: Physicians are obligated to treat those who are ill, and those who are ill undertake the 'sick role', making great efforts to become well again. Their role obligations thus require that patients who are sick make efforts to become well and that physicians are obliged to help them regain their health (Parsons, 1951). While reciprocal, this relationship is not one of equality, giving rise to what Freidson has referred to as a "clash of perspectives" between the experiential world of the patient and the knowledge/evidence-based perspective of the physician (Freidson, 1975, p. 286).

Freidson's perspective presented a contrast to Parsons. Where Parsons contends that the social control attributed to the work of physicians was an effect of the deviance of illness, Freidson saw this control as the reasons for the deviance (Curricaburu & Ménoret, 2004). Rather than just legitimizing the behaviour of those in the sick role (Parsons, 1951), medicine creates the possibilities of these behaviours (Freidson, 1970), reinforcing the dominant position held by

physicians. In this way, Freidson argued for a conflict approach to physician-patient encounters. Here the physician-patient encounter is a negotiation between professional and lay systems, each with their own interests and goals, which may be why Waitzkin refers to these encounters as micro-political situations (Waitzkin, 1984, 1991). The power of the physician in these encounters centers on their ability to create legitimate categories of disease, to diagnose and treat, and to allow access to the health care system at large. That the medical profession is in a dominant position with legitimized status, enables them to function as mediators of social control and the perpetuation of dominant value systems.

This is what has been argued by those taking a Marxist approach to health care. Here physician-patient encounters are sites in which dominant ideologies of society are reproduced (Waitzkin, 2000). As a dominant profession, they can make ideological statements conveying symbolic trappings of science, reinforcing the ideology of other social institutions (family, education, etc.) (Waitzkin, 2000). A clear limitation of this perspective however, is that patients do not necessarily accept medical interpretations, and physicians are often aware of the limits of biomedical solutions for some of the issues that their patients present with. As many have argued, patients are not simply passive recipients of health care, but are active in the process and often knowledgeable and informed (Arney & Bergen, 1984). Patients also have strategies of resistance, indicating that while physician-patient relationships are inherently unequal, both participants have the ability to influence the outcome of the encounter (Stimson & Webb, 1975).

While much has changed, much too has stayed the same. As Shilling (2002) argues, the cultural values that underpin relationships between physicians and patients remain remarkably enduring within the context of the medical encounter. Indeed, Strong refers to this as the “ceremonial order” (Strong, 1979, p. 38), referring to the norms that make a medical encounter a distinct social event. In this way, an actor’s action is not only prescribed by circumstance, but also serves as a resource, which he refers to as ‘role formats’ informed by routinized, culturally available solutions (Strong, 1979). Similar to Latour’s ‘plug-ins’ (Latour, 2005) or Bourdieu’s habitus (Bourdieu, 1977b, 1992), these role formats would allow individuals to be familiar with events, like physician-patient encounters and to know the basic unfolding of this particular script.

While different ways of looking at the patient-physician relationship exist, it is clear that what remains as relevant as always is the interdependency of this relationship and the inherent power imbalance involved. While both require the services of the other for legitimization, the relationship between them has shifted over time, as patients gain access to further information and physicians are supported by greater and more efficient technologies. It is also clear that while much has changed, the key script involved in patient-physician relations during encounters has remained largely the same, reaffirming the deeply routinized practices of some social events. In the next section we give a brief overview of the relationship between physicians and other health care professionals, seeking to contextualize their micro interactions with an understanding of the profession-level context.

Physicians and Other Practitioners

The division of professions in the field of medicine has been a long-standing one. While alliances between modern physician associations and those other health care practitioners helped facilitate the development of the profession of medicine into its modern form (Caplan, 1989; Simmons, 1907; Sous, 1907), they remained, as noted earlier, external to the boundaries of medicine, as controlled by physicians. Even in the face of growing arguments of deprofessionalization, Freidson argued that physicians remained dominant because as a profession, their legal and institutional dominance remained intact (Freidson, 1985). The autonomy of the profession is sustained by the dominance of its expertise in the division of labour (Freidson, 1970), and it is this expertise that creates a difference between truly dominant professions and those that claim to be professions, but do not possess the same status (Freidson, 1970). Freidson argues that this difference reflects the existence of a *“hierarchy of institutionalized expertise”* (Freidson, 1970, p. 137, original emphasis).

The concept of medical power, often inferred through medical dominance, has been employed by many sociologists and anthropologists as a means through which to conceptualize the relationships between the biomedical community and others in western health care systems (Broom, 2006). By dominance, Freidson was implying the control by medicine over the content of work, other health care practitioners, patients, and the terms and conditions of work (Freidson 1970). Its most common usage has arguably been in relation to medicine’s relationship with alternative medicine, the nursing profession, midwifery, and allied health professions (Coburn, Torrance, & Kaufert, 1983; Ovretveit, 1985; Willis, 1989) and as part of a

broader discussion of physicians' control and influence in their place of work, patients, health care legislation, training, and professional regulation (Broom & Woodward, 1996; Coburn, Rappolt, & Bourgeault, 1997). Studies of complementary and alternative medicine and midwifery have illustrated the strong political influence of biomedicine in shaping the nature and delivery of health care services (Dew, 2000; Kelner, Wellman, Boon, & Welsh, 2004), emphasizing that much of health care delivery services by practitioner is not necessarily about what is effective, but is instead influenced by historical, contextual, ideological, and political factors (Broom, 2006).

Medical dominance is most often portrayed through the physician-nurse relationship. Nursing's subordination to medicine has often been explained by describing nursing as an occupation (as opposed to as a profession) and one that is heavily dominated by female workers (Porter, 1992). Professions were different from occupations, according to Freidson, because they controlled their own work and the conditions under which this work was conducted (Freidson, 1970). Further, the lower status of nursing is also associated with lower educational and socioeconomic status of women entering nursing, and medicine's patronage by the state (Willis, 1989). Medicine's privileged status over nursing, and other health care professions, is thus one based on unique knowledge and skills, as acquired by individuals (traditionally men) of particular socioeconomic backgrounds.

The structural position of the medical profession patterns the relationships among health care practitioners (Freidson, 1970) and physician dominance ensures that they control the division of labour, which allows them to keep prestigious tasks for themselves (Freidson, 1971), while

delegating 'dirty work' (Hughes, 1951) to others. As new prestigious tasks are added to the role, lower prestige tasks are moved downward and onto those who are lower in the professional hierarchy (Freidson, 1983; Hughes, 1971; Larson, 1977). This pattern is replicated throughout the hierarchy as dirty work continues to be passed along. This professional dominance also ensures that physicians, for the most part, remain gatekeepers to other health-related services or other health care practitioners (Freidson, 1970).

In this way, work tasks are the essence of a profession, and not its organization (Abbott, 1988). Here, each profession has its activities under various kinds of "jurisdiction" or boundaries. At any point, professions have different degrees of dominance that reflects the strength of their jurisdictions, as such, boundary control varies with professions sometimes having full control, and other times being subordinate to another professional group. Jurisdictional boundaries are perpetually in dispute, both in local practice and in national claims. According to Abbott, it is the history of jurisdictional disputes that is the real history of the professions (Abbott, 1988).

In Freidson's perspective, the division of labour is not the result of technological developments, but political manoeuvrings of the dominant profession that facilitated the development of particular divisions of labour (Freidson, 1971). The situation of nurses is a prime example of the division of medical labour and its subordination under medicine (Abbott, 1988), but so are others, like physiotherapists and midwives (Coburn, 1998; Curricaburu & Ménoret, 2004). This subordinate jurisdiction presents great advantages to those professions like physicians with full jurisdiction (Abbott, 1988).

The maintenance of this subordination emphasizes formal (legal and public) subordination: Since the public believes that nurses are subordinate to physicians, it may be so that it is believed that nurses know less about medical things than physicians (Abbott, 1988). The maintenance of subordination is thus in part symbolic (beliefs, the use of clothing to signify status, other symbols of authority), and practices like exclusions ('you don't need to know why') or coercion ('you do it because the physician ordered it') (Abbott, 1988). In this way, the cultural work of professionals that apply their knowledge in practice, are socialized into professional culture, and have their work legitimated in the cultural values of society at large transform this work into cultural structures that form the practical claims for various types of social control in various settings (Abbott, 1988).

The division of tasks that affect professional practices and their interconnectedness to symbolic meaning ensures that the maintenance and negotiation of tasks and work jurisdictions means that the study of social interactions offer much in the way of understanding how boundary and role maintenance take place. When considered in this light, we can see how the practices and discourses of professions, the spaces in which they interact, and the power imbalance in organizational hierarchies all come to reinforce social and professional order. Interactions between patients and physicians and physicians and other health care practitioners provides the opportunity to examine power relationships by examining inequalities as sustained by "networks of reasonable people all doing perfectly normal and routine things, sustained by a symbolic discourse which legitimates some actions and denigrates or prohibits others" (Dennis & Martin, 2005, pp. 208-209).

As with their interactions with patients, the relationship between physicians and other health care practitioners is complex, steeped in history, and complicated by professional hierarchies and patient needs. Interactions between health care providers are inherently riddled with symbolic power and influenced by professional and organizational hierarchies as practitioners undertake the ongoing negotiations for capital and professional jurisdictions.

There has been, in the last two decades, an increase in interest in the study of professions and professional boundaries as health care teams and collaborative care models have grown not just in hospitals (Patel, Cytryn, Shortliffe, & Safran, 2000), but in other health care organizations as well (Dieleman et al., 2004). Interdisciplinary, multidisciplinary, transdisciplinary, interprofessional, and intraprofessional (Choi & Pak 2006) have become widely used buzzwords in the study of health care and health care professionals. The movement towards collaborative health care teams raises a number of interesting sociological issues around the negotiation and management of professional boundaries and, in light of this, the status of medical dominance (Bourgeault & Mulvate, 2006). Although the argument has been raised that a team-based model of care might be seen as having the effect of curbing medical dominance, others have explored the structural embeddedness of medical dominance (Bourgeault and Mulvate 2006), which we speak to in Article 3, chapter 6, through our analysis of the interactions of health care practitioners and patients in hospital spaces.

Much of the health services literature on health care practitioners working in collaborative environments has been focused on the efficacy of teams through the assessment and evaluation of patient outcomes and on its ability to increase productivity (Dieleman et al, 2004;

Opie, 1997). Similarly, sociological literature has examined interprofessional relations within the team, drawing attention to professional boundaries, most particularly the ways in which they are constructed, maintained, and negotiated through the everyday actions and discourse used by practitioners (Griffits, 1997; Hindmarsh & Pilnick, 2002; Mizrachi, Shuval, & Gross, 2005). Such research has described, for example the ways in which the boundaries between physicians and nurses have blurred given some of the tasks undertaken by nurses, while still emphasizing that physicians have not tended to take up tasks traditionally associated with nursing (Allen, 1997, 2000, 2001). Much of this sociological literature draws on Freidson's (1970) work on medical dominance, emphasizing the dominance of medical discourse in light of the neglect of other discourses in team environments (Opie, 1997) and the heavy influence of medical thinking in decision-making, referred to as 'medical hegemony' in Coombs and Ersser's discussion of the perceived undervalued nature of nursing knowledge (Coombs & Ersser, 2004, p. 245).

Broom (2006) argues that there has been a decrease in critiques of professional power, with a refocus of attention to issues of knowledge production like evidence-based medicine (Timmermans & Kolker, 2004), social and cultural effects of specific health conditions, like AIDS and HIV (Ciambrone, 2001), and the role of new technologies like genetics and nanotechnology (Willis & Broom, 2004). While there has indeed been a shift in sociological literature, it is arguably not away from that of professional power, which can be found imbedded within each of those topics, from medical power through possession of knowledge, to the medicalization of illnesses and the social and cultural consequences of this medicalization, and the reach of medicine into growing technology spheres like that of genetics and epi-genetics. Additionally,

as the literature in this section demonstrates, while the outright study of medical power may not be as front and centre as it was particularly in the 1970s, it remains a component of much of the work done by social scientists working in this field. Indeed, Broom himself argues that recent trends in medical sociology appear to be in the study of the complexity of medical work and it is often through work, and the jurisdiction of tasks, as we have seen, that medical domination is established and maintained (Abbott 1988).

This perspective is shared by Coburn (Coburn, 2006), who argues that present forms of capitalism tend to accommodate medicine in different ways, ranging from salaries to health insurance, that change the framework of what medicine can control from the way it was in the early-mid 1900s. Other institutions, like drug companies, have become large players in the field of health and medicalization (Ballard & Elston, 2005) and other health occupations, like complementary and alternative medicine, began to demand self-regulatory powers (Coburn, 2006). Others have argued that the rise of 'health' as a consumer product, the increase in litigation challenging physician competence, and the changing roles of healthcare professionals present ongoing challenges to the dominance of medicine (Willis 2006). Coburn (2006) notes a decline in the political power of medicine, particularly with regards to their ability to control or set political agendas, though they are still able to block reforms or encourage others (Coburn 2006). This is not to say that "medicine is not the single most powerful profession within health care, or that it lacks power" (Coburn 2006: 438), but that medical power is not what it once was during its hegemonic era (Hafferty & McKinlay, 1993). In this sense, while it is intuitive to want to argue for a decrease in the dominance of medicine, some (Coburn, 2006; Dent, 2003; Hafferty & McKinlay, 1993; Tousijn, 2002) would argue that there are many facets of medical

domination that can vary on a number of different dimensions (Dent, 2003; Tousijn, 2002) and as recent studies have shown, medical dominance continues to be present in both micro and macro levels of the health care system (Bourgeault & Mulvate, 2006; Coburn et al, 1983; Larkin, 1983; Willis, 1989). As Willis (2006) argued in his introduction to a special issue on medical dominance, evidence for and against the decline of medical dominance is difficult to obtain, particularly since interpretations seem to be one of questioning whether the 'glass is half full or half empty' (Willis, 2006) and much evidence remains suggesting that the medical profession does indeed retain "very significant power and authority" (Willis, 2006, p. 427).

Physicians as a Case for the Study of Social Representations

It is thus understandable then why physicians have traditionally been a popular subject of study among academics, particularly sociologists and historians, throughout the 1900s. Research interests have been broad, with academics studying their role in the moral order (Carr-Saunders & Wilson, 1964 [1933]; Durkheim, 1933 [1893]), their general characteristics (Greenwood, 1957; Moore, 1970 ; Pavalko, 1971), their socialization, influence, and power (Freidson, 1970, 1971; Johnson, 1972 ; Larson, 1977), professional boundaries (Abbott, 1988, 1995), meanings of work and identities (Becker, 1961; Becker & Strauss, 1956), professionalization (Hickson & Thomas, 1969; Hughes, 1958), and discourse (Wodak, 1997). This interest in the profession also extended into the realm of mass media. A review of the literature in this field reveals that the approach to physicians in mass media has been one of portrayals and descriptions (Czarny, Faden, & Sugarman, 2010; Gerbner, 1981, 1982; Kalisch & Kalish, 1984; Kapf, 1988; Pfen, Mullen, & Garrow, 1995; Turow & Coe, 1985).

It is clear that a study of the social representation(s) of physicians is noticeably absent, at least among English and French language scholars. The intricacies involved in the long history of this profession and the complexity of their relationship with their patients and other health care practitioners provide ample opportunities to observe discourse and practice. The long-duration of physicians as a social object, one that is both of relevance to society and ongoing visibility makes it an ideal candidate in a longitudinal study of social representations and their transformation.

A sociological interest in the transformation of social representations can thus be placed at the intersection of social representations as a shared, dynamic phenomenon, mass media as a source through which dominant, shared social representations are re-presented to society, and physicians as a familiar, powerful social object of long-duration. The study of representations, particularly over time, provides an opportunity to understand representations that have persisted for long durations and doing so through the lens of mass media can give researchers access to representations that would otherwise be inaccessible. We contend that our study of physicians thus offer a suitable and interesting case with which to study the transformation of representations, offering something new to the study of the transformation of social representations, presenting a representation for study that has not previously been undertaken, and contributing an additional perspective in the study of the profession.

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Methodological framework

Introduction

The previous chapter specified the problem to which this thesis is addressed and discussed the chief arguments through which that problem is to be understood. In this methodological chapter it will be suggested that thematic analysis and multidimensional scaling can be used to guide the development of the identification and exploration of the social representation of physician in televised media (1954-2010). The chief purpose of this chapter is to present our research methods. In a related article, chapter 5, we discuss the development of a methodology to facilitate the explorations of social representations in the past.

If the focus of our study is constituted by the elements we propose to study empirically – speech, behaviours, practices – then the object of our research is itself centred within the theoretical framework of social representations considered through the lens of social transformation. It leads us to determine the structure of the social representation of the physician and to then identify transformations over time, demonstrating ongoing changes in social practices in society. Placing ourselves within the field of social representations, we position the study of representations over time as central to the comprehension of how social

representations transform progressively and how we might study these changes through a methodology that allows for the identification of social representations in the past. This approach will allow us to determine changes in the representation and practices of physicians, and test our methodological approach to studying representations in the past.

Social representations pervade all arenas of social life, presenting researchers with a variety of contexts and methods with which to study them (Howarth, 1999, 2006). There is, according to Farr (1993) and Moscovici (1982) no one way of studying social representations. Problems of articulating analytical processes are compounded in studies in which more than one method of analysis has been used (Simons & Lathlean, 2008), as we have done in our attempt to identify the structure and content of the social representation of physicians and explore its transformation over time. The methods entailed in the development of the research methods is a combination of quantification of qualitative data and thematic analysis. Two analytical methods were adopted because we were concerned that one method alone was insufficient to uncover the structure and content of the representation. Given that our research objectives were to identify the structural components of a social representation and determine how it has transformed over time, the combination of quantitative and qualitative methods were necessary. These data are derived from the analysis of data drawn from observational data collection techniques. As mentioned above, our data collection method and analysis techniques, designed as they were to capture social representations in the past, are one of the key contributions of this study. Though we have sought to illustrate the methodological development involved in our methods in each of our articles, chapters 4, 5, and 6, here we seek

to demonstrate the processes of data analysis involved in the double analysis of the same dataset.

This chapter begins with a discussion of the challenges of studying the transformation of social representations, most particularly, our goal of studying representations in the past. Following this, we will discuss our analytical framework of thematic and multidimensional scaling analysis and will present our sample, data collection methods, and discuss our data analysis process. To facilitate the understanding of what follows, it might be worthwhile to say a little with regards to the sample as part of these introductory remarks. Data to be analyzed comprised 902 pages of field notes of television portrayals of physicians which appeared on North American television between the years of 1954 and 2010. The sample is comprised of 100 episodes (92.5 hours) of medical dramas and the precise means of its construction can be found later. For present purposes, it is enough to say that these data, derived from observations, are the data to which the following is applied.

Two Analysis Methods Applied to the Same Data Set

Locating social representations in the past is an uncommon undertaking that offers much in return, as we outline in article 3, chapter 5. To identify the social representation when using televised media requires a qualitative and quantitative approach to data analysis. Our analytical approach to the study of representations sought to identify key themes and patterns in the data, as they related to the physician, followed by an organizing of these key themes into clusters that represent not only the structural elements of the social representation, but that would also organize the structure into its of core and peripheral systems. This structural

approach to the study of social representations is particularly useful to identifying and tracing changes in the representation over time. To do this, we conducted a thematic analysis, followed by the application of multidimensional scaling.

Thematic Analysis

The choice in the use of thematic analysis, used less frequently than content analysis in the study of social representations, is derived from the exploratory nature of the study itself.

Following Guest, MacQueen, and Namey (2012), thematic analysis codes from the data, using purposive sample, and is exploratory in nature, while content analysis is more hypothesis driven, with codes generated from hypothesis, employing random sampling (Guest et al, 2012).

The goals of our study – the exploration of social representations and the development of an applicable methodology – make this project exploratory by nature and we work without hypotheses. Our sample, as described further in this chapter, is purposively selected, although we do blend data-driven coding with codes derived in part from the literature on desirable traits in physicians. Moreover, we must consider the nature of our object of study – social representations – which are dynamic and always in movement, and the relevance of this to our study. The flexibility of thematic analysis and the data-driven nature of its coding facilitates the identification of potentially subtle changes over time that may not be captured with pre-determined categorization of content analysis. Thematic analysis allows the researcher to analyse the frequency of a theme within the context of the dataset. It also allows for the translation of qualitative information into quantitative data, if so desired (Boyatzis, 1998).

We concern ourselves mainly with the 'manifest' level of our media data. Manifest here is understood to mean the level of the data that pertains to meanings that are socially shared and thus open to reliable inspection (Berelson, 1952). This perspective acknowledges the interpretive work that is done by a researcher, but that latent meanings need not be the focus of interpretation (Rose, 1995). The present research does not seek the deeper meaning of the text, nor a latent meaning beneath the text. This is reflected in the work of Gerbner, Holsti, Krippendorff, Paisley, and Stone (1969) who argued in his work on the meanings in mainstream television concerning violence and representations of social groups that it is inadvisable to infer 'intentions' upon media and as such, no inferences need to be made in order to validate meanings discovered at the manifest level. Working with televised media we find the meaning of what is aired will pertain to what is made visible: what is shown and how it is organized. In saying this, we are also acknowledging that our interpretation of the televised media is always structured and influenced by concepts and theories conditioning our analysis. Our analysis then is one focused mainly on the surface of media, in what is made visible through televised media and we do not concern ourselves with what the show's creator or writer(s) intended meaning might be.

Finally, to address the question of quantification of qualitative data we note that although some, like Allen (1985; 1992), have argued that meanings are qualitative phenomena that cannot be reduced to numbers, his argument is based on a supposed disconnect between meaning(s) and quantification: If a researcher seeks to account for frequency, they are not concerned with meaning, but with reified phenomena. We, like Rose (1995), contend that this is not the case. Meanings are not lost inevitably through categorization. Thematic analysis

addresses this concern through its coding scheme, derived as it is from the data itself - identifying key words, themes, patterns, trends and through coding, preserving the meanings, conserving their relevance. That some themes might occur with more frequency than others does not detract from the meaning and significance of the codes. The numbers are indicative, but not true quantification. Moreover, Rouquette (1993) recommends methods based on algorithms with the possibility of building their own semantic categories, as with the similarity analysis developed by Flament (1981), as essential to the study of social representations. We extend our methods of analysis further, building on a similarity matrix to better illustrate the structure of a social representation. While similarity analysis allows us to characterize the cognitive structure of an object, the application of multidimensional scaling to this similarity matrix further demonstrates how the elements comprising the structure of a social representation are related proximally. It is thus not only the identification of the structure of a representation that is relevant, but how the elements of the core and peripheral systems are related to one another that determines the overall meaning and hierarchy.

Multidimensional Scaling

We seek to now discuss the use of our second analysis technique, that of multidimensional scaling (MDS), being at once explicit in our methodology to be clear about the types of theoretical models produced and also further demonstration of the usefulness of our method of combined analysis. While thematic analysis can successfully identify the content of social representations, it is less useful in informing us about the structure. Both content and structure are important for an overall understanding of a representation (J.-C. Abric, 1994). MDS was

selected as a means to quantify our data to reveal the structure of the representation of the physician and how this changed over time. It facilitates the identification of the structure of a social representation and it also separates the elements of the structure into core and peripheral systems, allowing us to note changes that occur over time.

Multidimensional scaling is not used as frequently in the study of social representations as it could be (Purkhardt & Stockdale, 1993), but it is highly useful in determining the structure and relationship of elements forming the core and periphery of representations and has been used by others studying the structure of social representations (Moloney, 2007; Moloney, Hall, & Walker, 2005; Sammut et al, 2012). There are a number of ways in which to geometrically model data, which has led to some confusion over the use of multidimensional scaling.

Sometimes referred to under different names, such as smallest space analysis or multidimensional similarity structure analysis (Borg & Groenen, 2005), we rely on Carroll and Arabie's more narrow definition of MDS as a spatial distance model for similarities, dissimilarities, and other proximity data (Carroll & Arabie, 1998). At its most basic, the essential component defining MDS is the spatial representation of the structure of a dataset as distances among points in geometric space, displaying the essential information and smoothing out noise and often showing regularities that might otherwise remain hidden to those working with only an array of numbers (Borg & Groenen, 2005; Young, 1987).

Multidimensional scaling is most often used to create models that relate physical properties to perceptual or cognitive representations (Borg & Groenen, 2005). This makes it particularly useful in the study of social representations. The principles underlying MDS are congruent with

the principles of social representations in the recognition that knowledge is shared (Purkhardt & Stockdale, 1993). Both function under the assumption that individuals think about complex stimuli, like social objects, by referring to attributes or dimensions of the stimuli. These dimensions are brought together in a 'mental map' in which the stimuli are represented at different locations (Purkhardt & Stockdale, 1993).

While it cannot directly model the processes involved in the creation of our complex social environment and the social construction of reality, its assumptions are consistent with these premises (Purkhardt & Stockdale, 1993). MDS does not require that the richness inherent in the perception of social objects (the multiple attributes and dimensions) be separated from the object itself. And in this regard, MDS actually allows representations to emerge from "simple and relatively unconstrained tasks, mirroring the actual complexity of the social environment" (Purkhardt & Stockdale, 1993, p. 277). Social representations function under the premise that individuals are active 'perceivers' who construct their own social reality. In this way, "subject and object, the perceiver and the perceived are not reified into separate entities, but are characterized by a dynamic interdependence" (Purkhardt & Stockdale, 1993, p. 277). MDS is designed to explore this complexity, capturing both the content and structure of a representation (Purkhardt & Stockdale, 1993).

Used in the analysis of social representations (Doise, Clémence, & Lorenzi-Cioldi, 1993b; Foster, 2001; Stockdale & Purkhardt, 1993), it is a descriptive technique for proximity relations that can be used to visualize the structure individuals impose on objects, events, and situations in their environment (Heiser & Busing, 2004; Krustal & Wish, 1978). Proximity is understood to mean

nearness in space, time, or in some other way (Cox & Cox, 2001), but here we refer to it as indicative of nearness in Euclidean distance². Two points in MDS have a number of properties in common. These properties are relevant to MDS because they imply that proximities can be mapped into distances only if they too satisfy certain properties (Borg & Groenen, 2005). In order to be proximally close, items must have characteristics that are similar.

That proximity can be used to identify structure and content suits a structural approach to the study of social representations in which social representation are hierarchical cognitive structures structured by a central and peripheral system (Abric, 1989; J.-C. Abric, 1994; Flament, 1987, 1989, 1994c). Interdependent, but complementary, these systems give the representation its meaning (J.-C. Abric, 1994). The core functions as a stabilizing element, giving meaning to the entire representation in a way that any changes to a core element would radically alter its meaning. This core system functions in tandem with the peripheral system that provides a flexibility that the core cannot. This peripheral system allows the representation to adjust to changes by adapting to changing social practices or information that conflict with the core (Flament, 1989). Because of this adaptive nature, changes in representations can most often be identified within the peripheral system (J.-C. Abric, 1994).

A MDS analysis facilitates the identification of the key indicators associated with social representation of a social object, here physicians. When located in geographical space on a map, the groupings and their subsequent locations should facilitate the identification of which

² MDS is almost always carried out in Euclidean geometry, which is the most common way to think about distance. Euclidean geometry is *flat* geometry. It is a formalization of one's experience in a spatially limited environment in which, for example, the distance between two points could be measured with a ruler (Borg & Groenen, 2005).

of the indicators are core elements of the representations and which are peripheral. How the core and peripheral groups are identified depends on the type of data being considered. For those using quantitative data, a regression analysis (Purkhardt & Stockdale, 1993) can be used to identify which elements represent the core system and which represent the peripheral system. For those using qualitative data, upon which regressive analysis cannot be applied, the identification of the core and peripheral elements requires that the elements and their groupings be considered within the context of knowledge of the data (Purkhardt & Stockdale, 1993) and relevant literature. In addition, frequency can also be taken into account. Elements that present themselves in the data at a higher frequency, particularly those that appear consistently frequent (rather than those that vary in frequency from high to low), are often elements of the core system (Y. Aissani, Bonardi, C., 1991; Bataille, 2002; de Sá, 1996). When the grouped MDS data is thus considered in terms of familiarity, available literature, and in terms of frequency, a more robust image of which elements are core and which are periphery can be confirmed. This will be discussed later in this chapter.

When combined, thematic analysis and multidimensional scaling provide an analytical framework that not only categorizes the dataset into key themes as they relate to the representation of the physician, but also structures these findings and places them in a hierarchy. In the sections that follow we discuss our sampling framework and data collection techniques, followed by a discussion of the application of our analytical framework to our data.

On Observations

The study of the transformation of representations requires a dataset that extends over a select period of time. For those interested in assessing change over longer durations, suitable materials must be chosen to facilitate a systematic assessment of the representation that will provide relatively consistent data quality. Given the limited means of accessing representations in the past, we have chosen to work with televised media, as available over a 60 year time frame, to assess the potential for transformation of the representation of the physician. Media, as we will discuss, provides us with the opportunity to observe not only conversations, but people in movement. This is highly relevant to the study of representations given that they appear not only in discourse, but also in practice (J.-C. Abric, 1994).

The Sample

The aim of the purposive sampling frame (Miles & Huberman, 1994, p. 28) was to include representation of medical dramas from each decade, starting in the 1950s when medical dramas began to be broadcast on television networks. There were no limitations by networks. In his 2010 work, Turow compiled a list of all televisions shows that had ever aired that featured physicians (See Appendix A). These were assessed and examined and to them were added several French language medical dramas produced in Quebec. Our preference was to sample at least two medical dramas from each decade for several reasons. We were interested in accessing a variety of portrayals of physicians in medical dramas, not only to increase the data we had available to aggregate, but also to capture a broader depiction of physicians in

televised media. Accessing two television series provided a suitable amount of data, while also being, in most cases, a number that was achievable in terms of gaining access to the media.

It must be stressed that the criteria for the inclusion of a television series in the sample were quite tight. This was deliberately done to better show variation in portrayals if variations did indeed exist. Series were required to be physician-focused medical dramas set in North America in a typical hospital setting with a typical practice, excluding shows with outliers, such as *House*. This excluded soap operas, reality television, and any television series in which the focus was on the life of the physician and not their practice (because our interest was in the work that physicians do, our sample was limited to shows focusing on patient care in the workplace). Series had to be popular, as demonstrated by their longevity, providing a longer viewing time frame, giving us a better representation of the portrayal of physicians at that time. Shows had to be medical dramas and they had to be set in a hospital, both criteria chosen for their ongoing presence in televised media, although with some shows, like *Marcus Welby, M.D.* interactions between hospital and general practice were accepted based on limited options. Television shows were excluded if they were not focused on physicians and their work, thus, for example, the highly popular *The Cosby Show* from the 1980s was not included because the focus was on his family life, rather than his professional practice. Series had to be available for viewing in any format including televised reruns/current broadcasting or DVD/VHS/Internet streaming options. This proved to be a complicating factor in our work, particularly when it came to the earlier television series (1950s, 1960s), in which re-runs were not airing, DVDs/VHD were not available for public purchase, and searches of private sites like eBay, forums like those on IMDb

turned up no availability. In addition, we were able to obtain only one French medical drama produced in Quebec (*Trauma* 2010).

A list of the programmes that were included in the sample is given below, in addition to the dates through which the original programming aired. Only those in bold were used in the study.

City Hospital (1951-1953)	Trapper John, M.D. (1979-1986)
Medic (1954-1956)	Urgences (1995-1996)
Dr. Kildare (1961-1966)	ER (1994-2009)
Ben Casey (1961-1966)	Chicago Hope (1994-2000)
Marcus Welby, M.D. (1969-1976)	Grey's Anatomy (2005-present)
Emergency! (1972-1979)	Trauma (2010-present)
St. Elsewhere (1982-1988)	

As can be seen, we were not successful in obtaining *City Hospital* (unavailable), *Trapper John, M.D.* (not a suitable option), or *Urgences* (unavailable). Where shows were not available, one medical drama was used to represent the decade, as occurred in the 1950s (*City Hospital*) and 1980s (*Trapper John, M.D.*). We were limited to only one of our identified Quebec-produced French language medical dramas, *Trauma*, as *Urgences* was not available. This did not affect the number of shows for the 1990s, however, as we were able to find suitable English language replacements.

The length of the sample is 92.5 hours, comprising 10 series and 100 total episodes.

Using Media to Study Representations

Television is a medium that cannot be analyzed purely on models of conversation. The presence of strong visual dimensions used in the construction of the story narratives and the importance

of action to social representations make it imperative to capture not only what people are saying, but what they are doing. Moreover, as (Rose, 1995) argues, cameras are not filming just whatever is present; instead they are constructing shots, or images, best suited to fit the desired narrative.

In deciding to work with televised media we made the assumption that we can learn something about our society by observing the media that we present to ourselves, as it was with Geertz's study of the Balinese cockfight. He remarks that by participating in this cockfight, the Balinese are *saying something about themselves to themselves* (Geertz, 1973). "I have tried to get at this most intimate of notions not by imagining myself someone else...and then seeing what I thought, but by searching out and analyzing the symbolic forms - words, images, institutions, behaviours - in terms of which, in each place, people actually represented themselves to themselves and to one another" (Geertz, 1983, p. 85). The importance of the study of mass media to social scientists is centred on the media's role as a representation of social knowledge and of society itself, particularly since the social system in which they are made influences content and meanings (Powdermaker, 2002; Spitulnik, 1993). Artifacts of the culture industries, like film and television, have assumed "tremendous cultural power" (Kellner, 1991, p. 79). These visual artifacts do not depict the society, but what a society considers as an image of itself (Bigazzi, 2009). The use of media as a source through which to obtain and observe social representations thus emphasizes representations as "cultural products, reified in social artefacts" (Breakwell & Canter, 1993, p. 5).

Undertaking a study of social representations in the media is worthwhile because mass media is an "increasingly common way in which social representations ... enter the currency of everyday life. In terms of communicative processes, the media are distinctive in key ways, so that the media may not be 'just another source' of representations" (Livingstone, 1998, p. 98). The sources upon which televised media draw upon are the social representations at play in society at the time of the programme's creation. In this way, the study of these cultural products and social artefacts can reveal the values, attitudes, and sensibilities pervasive in society at the time of a show's production (Cripps, 1990; Sklar, 1990); a re-presentation of our social representations, as it were. Through this process, social representations can be confirmed, re-articulated, or re-enacted in different ways (Howarth, 2006).

Livingstone makes the argument that because of the varying ways in which our symbolic worlds is created and recreated, there is no one role for representations. It is this variability which makes television one of many vehicles for conveying social representations. People may be able to distance themselves from television representations. We acknowledge that representations acquired through the media will not present a coherent, harmonious whole, allowing for personal interpretations, intermingling with representations obtained in other places and in other forms. In this way, we agree with Livingstone that we must question the power of television to *impose* its new social realities upon its viewers, drawing into question Moscovici's claim that social representations "impose themselves upon us with irresistible force" (Moscovici, 1984b, p. 7). The misinterpretation of this frequently cited quote hinges on his use of the concepts of structure and tradition, a secondary part of the quote which is often left out. Within this context, the strength or the prevalence of social representations and their effects

are derived from their ability to be structuring, much like Bourdieu's habitus is a structuring structure. This structuring structure is a "combination of a structure which is present before we have even begun to think, and of a tradition which decrees *what* we should think" (Moscovici, 1984b, p. 7). As Moscovici notes, one of the greatest successes of social representations is their ability to control the reality of today through that of yesterday (Moscovici, 1984b, p. 10).

As a social institution, mass media presents a set of social representations to its viewers, and it does so in a way that often reflects the dominant social representations in society, creating and reinforcing representations, and transmitting portrayals of a particular reality (formed of particular images, values, etc.) that sustain not only beliefs in ideas and institutions, but also power relations (Hallam, 2000). Identifying and understanding these representations as they exist and are shared through mass media is an important part of understanding the dominant groups in societies. Although social representations may seem innocuous, static televised images of social objects, these representations have real social implications in that they mediate ideas and values (Hallam, 2000) and the role of mass media, as an institution that generates specific discourses and logics and that reveals common knowledge about socially-shared beliefs, ideas, and values (Coyne & Leeson, 2009) makes it an important field of exploration.

Collection of Data through Observation

Observation, as a data collection technique, allows the researcher to access "perspectives in action" (Morril & Fine, 1997, p. 438). These perspectives consist of interactions that occur during regular daily routines, facilitating the study of processes, relationships, events, and

patterns and allowing the researcher to capture the meanings people use to define and interact with their social world (Jorgensen, 1989). Observation creates the opportunity to explore the exchange of knowledge as it is occurring and allows us to capture what knowledge about physicians and their image is shared.

Observations employed in this research project included observation of demographics (gender, ethnicity), events occurring in the episodes (patient-physician encounters, practitioner-practitioner encounters), and behaviours. Using this data collection technique will allow us to identify the social construction of the image of the physician in a more comprehensive fashion through access to both action and dialogue. As we have noted earlier, some elements of social representations only present themselves in action. As such, attempting to capture these two elements should provide us with a richer dataset to engage with.

It was decided that observations of televised media would be approached in the same manner that regular observational fieldwork would be undertaken. We sought to capture verbal material and supra-verbal information about not only the individuals, but also their setting, the space around them, the technology accessible to them, etc. Instead of transcribing verbatim everything on the television screen, we captured the comings and goings of individuals, the general discussion that was taking place, where they were located and other small details, such as what they were carrying, where they have positioned themselves within the space. This allowed us to capture such detail as physicians rushing, beepers going off, physicians poised at the edge of a patient's bed or in the doorway, or placing a 'do not disturb' sign on a room to catch some sleep. As in traditional fieldwork, we cited some quotes as we wrote, with the

benefit of being able to rewind and replay, if we were unsure of the phraseology, a benefit not available to most fieldworkers. We tried most particularly to capture quotes in which someone was describing a physician because it presented an interesting opportunity to capture verbatim how physicians (or a particular physician) were perceived by their peers. We also captured details such as what physicians and those around them were wearing, for example, in case that would be a useful component of our later analyses and noted whenever the narrative of the episode shifted with a change of scene, in case that was of relevance at a later date. Where possible, we tried to write with a cadence that captures the feel of scene, using descriptors such as “breezes by”, “angrily”, “sighs, frustrated” to give the field notes a richer sense of description. We did not seek to capture technical information, such as camera close ups or panning away. The goal was not to identify how the series was framed through the lens of a camera, but it may have provided an interesting additional perspective of the data.

We typed our notes directly into Microsoft Word, while watching the episodes on a second monitor. Notes were written long form, without the use of notational systems, because we were able to pause where necessary in order to catch up. The season, episode number, and episode title were logged for each observation both at the top of the field notes and in an Excel log. An example of the field notes has been included, below.

Field notes were written in 12 point font, single spaced, in Microsoft Word. They were organized by series, with all episodes from each series comprising a single Word document. Ten files, 902 pages of field notes derived from 92.5 hours of television, were then uploaded chronologically into ATLAS.ti.

Example of field note, excerpt

(ER) Season 15, Episode 2: Another Thursday at County

Morris is walking Katherine through a doorway and down a hall. He is telling her that they see 250, 300 patients a day if it gets crazy. They pass various shelving with stuff on it, light boards in the hall with scans on them. He remarks that if they can handle this place, they can handle anything. He asks why she came back from Indonesia and she tells him it was time, "Chicago is home." They walk quickly, and he tells her he's never understood the mission thing. Why chase trauma when they have disaster right at their front door. They pass through another busy hallway. Machine being pushed by an orderly, two nurses with charts walking two different directions. She tells him it's "not for everyone". She tells him the ratio was four nurses to one physician. She comments about "where are all the nurses? It doesn't look four to one here." As they enter the triage desk area, Morris pauses at a stack of charts and the black nurse, Helai tells them they're short, as always. Morris introduces her, she's in charge of nurses, he then introduces Banfield. Helai extends her hand, "Welcome to County". She has a chart in her other hand. Morris asks if they want coffee, both turn it down, only Banfield says "No coffee, it's a crutch." Banfield mentions wanting to get set up in the boardroom, she stands with her paper still folded in her hands.

Helai asks if she knows her, she looks awfully familiar. Banfield thinks probably not. Helai suggests a few places they might have met, like another hospital where she sometimes

picked up shifts. No, today's my first day. Helai tells her that if there's anything she needs to know about this place, breezes by her with a chart in hand, just ask.

Cut scene

In a room Daria is commenting about the zillion things Tracy brought with her, "Cuticle cream?" Tracy tells her latex gloves are terrible for her hands. They are moving things into their new locker space. Morris tells them to get settled and to meet him out at the desk. Morris stops by a table with a doc who looks exhausted. "You've been here like 96 hours", "Yeah short staffed." He is white, balding, scruffy but short beard. The guy take the coffee Morris has in his hand and starts to drink it. He remarks that Morris pretty much lives here. "Yeah, well it's easier than going home." The man remarks that sleep is overrated and walks back towards the patient area.

Cut scene

Banfield is walking through the triage area, wearing a white lab coat now, remarking that these patients have been on the board since yesterday. Gates crosses behind her and tells her that even when the hospital is full, they never discharge at night. As she stands in front of the board, Morris cuts to her right, stating "which makes it impossible to admit anyone." and Gates cuts to her left. Simon comes up behind both of them, chart in hand, and remarks he's friendly with the nursing supervisor on MedSearch (?), bet she can always find a bed for me. "Get her to open things up." Gates remarks, Sam follows with "lubricate the log jam", Banfield turns away from the board, telling him "do it." and walks away.

Data Analysis

The observational techniques used to gather data from our purposively selected media data lend itself to a thematic analysis most particularly, as we noted earlier in the chapter, because our study of the transformation of a representation and the development of a methodology that will facilitate this is exploratory in nature, benefiting from the open coding techniques of thematic analysis.

In the following section we explain the process through which we undertook our thematic analysis. In seeking to identify the key themes and patterns as they related to our observational data, we sought only to analyze the manifest level of our data (Berelson, 1952) and have avoided attempting to read into anything below the data or into the intended meanings of the writers or producers. To do this, as we will demonstrate, we use ATLAS.ti to code our data into large thematic categories, which are subsequently sub-coded and clustered into thematic categories.

Subsequently, we organize our data into a similarity matrix that is then analyzed using multidimensional scaling, which allows us to identify not only the structure of the social representation, but the hierarchical arrangement of its elements. In this way, the representation can be studied at different points in time to assess for structural changes.

Thematic Analysis of Observational Data

ATLAS.ti was used to organize the data. Software such as this and Nvivo are useful because they offer the capacity to deal with large amount of data, enabling links to be made and developed

in the actual process of coding the data. Data analysis software also offers a degree in flexibility that working manually cannot offer, such as the ability to combine codes systematically, 'print' codes and related data out into a single document, and the ability to conduct various queries.

Data were originally organized into broad categories within ATLAS.ti. Categories included key aspects such as depiction of physicians, interactions between physicians and other practitioners, patients, and other professionals (Table 1; See Appendix B for full code lists).

Additional categories of interest, such as depiction of female physicians, instances of not knowing, and a separate category for medical procedures were also created.

Table 1: Original data organization scheme

Code
Directly related to objectives
Depiction of physicians
Physician-Practitioner Interaction
Physician-Patient Interaction
Physician-Other Professional Interaction
Portrayal of women MDs
Other
Depiction of nurses

Given our interest in physicians, data coded into 'depiction of physicians' were then downloaded and saved as a separate Word file. This 940 page document contained all data coded as 'depiction of physicians', the television series the item was derived from, and cross coded codes.

To further reduce the raw data, these larger documents (depiction of physician, physician interactions, etc.) were then assessed and streamlined into an outline in which key activities, affect, thoughts and emotions are considered as potential themes. Following Boyatzis (1998),

these outlines serve to prevent premature identification of themes and make it easier to compare across units of analysis. To preserve the larger meaning of the unit of analysis, we included the outline elements in green text, located directly below each field note paragraph that was analyzed. We were thus able to access the full field note text and the synthesized outline brief when we examined the text.

At this time, all quotes were also reviewed and quotes that were duplicates were removed and where identified, typos were corrected. With the dataset cleaned, a full review of the field notes were undertaken to familiarize ourselves further with the data and to begin the development of a loose coding framework. Rough notes regarding what types of characteristics and behaviours were common were drawn up and the naming of the first nodes representing these data and other potential data were derived from attributes collected during the course of a review of the literature (both medical and social science) regarding attributes of physicians. The initial purpose of the literature review was to identify how physicians themselves would characterize 'good physicians' or 'desirable traits of physicians' and it was thought that a comparison between data derived from the literature and televised media may be of interest at a later time (see Table 2 for sources and key words use in search).

Table 2: Literature review sources and key words

Source	Key words used
PubMed	Attribute and physician Good physician Physician role
Jstor	
ScholarsPortal	
Google Scholar	

These initial categories (see Table 3) were combined with attributes drawn from the data, general demographics (young, old, male, female), and actions (making diagnosis, learning, administering treatment, etc.). This particular type of categorical coding facilitates the quantification of data (Boyatzis, 1998; Fife-Schaw, 1993), leading to a quantitative phase of data analysis, which will be discussed in the next section.

Table 3: Characteristics of physician drawn from literature review

Characteristics drawn from the literature	
Attentive (Schattner, Rudin, & Jellin, 2004)	Humanism (Bendapudi, Berry, Frey, Turner Parish, & Rayburn, 2006; Lambe & Bristow, 2010; Notzer, Soffer, & Aronson, 1988; Regis, Steiner, Ford, & Byerley, 2011)
Calm in stressful situations (Leahy, Cullen, & Bury, 2003)	Humble (Koh et al., 1998)
Caring (Koh et al, 1998; Pellegrino, 2002; Regis et al, 2011)	Informs the patient (Schattner et al, 2004)
Charisma (Samra, 1993)	Initiate treatment (Calman, 1994)
Clear, logical thinking (Koh et al, 1998)	Intelligent (Leahy et al, 2003)
Committed (Verdonk, Harting, & Lagro-Janssen, 2007)	Knowledge (Leahy et al, 2003; Notzer et al, 1988; Regis et al, 2011; Samra, 1993)
Compassion (Lambe & Bristow, 2010; Maudsley, Williams, & Taylor, 2007; Pellegrino, 2002)	Knows the answer (Samra, 1993)
Confident (Bendapudi et al, 2006; Holsinger & Beaton, 2006; Koh et al, 1998)	Long-term learning (Regis et al, 2011)
Control (Lowrey & Anderson, 2006)	Make diagnosis (Calman, 1994)
Cope with ambiguity, change, uncertainty (Lambe & Bristow, 2010)	Qualified, ability, competence (Fasce et al., 2009; Gillies et al., 2009; Notzer et al, 1988)
Courage (Pellegrino, 2002)	Recognition of limitations (Lambe & Bristow, 2010)
Decisive leadership (Gillies et al, 2009)	Respectfulness (Bendapudi et al, 2006; Regis et al, 2011)
Discrete, confidential (Koh et al, 1998; Leahy et al, 2003)	Respects patient preference (Gillies et al, 2009; Samra, 1993; Schattner et al, 2004)
Empathy (Bendapudi et al, 2006; Fasce et al, 2009; Koh et al, 1998; Lambe & Bristow, 2010)	Responsibility (Bendapudi et al, 2006; Fasce et al, 2009; Fones, Kua, & Goh, 1998; Lambe & Bristow, 2010; Leahy et al, 2003; Notzer et al, 1988)
Enthusiasm (Gillies et al, 2009)	Skill (Koh et al, 1998; Notzer et al, 1988; Regis et al, 2011)
Ethical, moral, principled (Fones et al, 1998; Lambe & Bristow, 2010)	Spends time (Koh et al, 1998; Leahy et al, 2003)
Experienced (Schattner et al, 2004)	Supportive of peers (Regis et al, 2011)

Forthright (Bendapudi et al, 2006)	Thorough (Bendapudi et al, 2006)
Going beyond (Gillies et al, 2009)	Truthful, honest (Fasce et al, 2009; Fones et al, 1998; Lambe & Bristow, 2010; Leahy et al, 2003; Notzer et al, 1988; Pellegrino, 2002; Regis et al, 2011; Schattner et al, 2004)
Good communication, listening (Calman, 1994; Lambe & Bristow, 2010; Maudsley et al, 2007; Regis et al, 2011; Samra, 1993)	Up-to-date (Fasce et al, 2009; Fones et al, 1998; Leahy et al, 2003; Schattner et al, 2004)

Using ATLAS.ti, codes were entered into the program and differentiated by the use of symbols.

Codes generated from a combination of the literature and observational data were prefaced by an asterisk ‘*’, while those nodes depicting ‘actions’ or ‘behaviours’ were prefaced with an ‘&’ symbol. All other codes that were added on an ongoing basis throughout this subcoding were left in alphabetical order. The use of symbols kept the codes organized into distinct sections for easier coding and rapid assessment, thus, for example, all behavioural practices prefaced with an ‘&’ symbol appeared together in the code list, allowing us to go through the list of actions an individual might undertake at one time to apply the relevant behavioural code.

Table 4: Example of coding list

Nodes and their symbols
& reading x-rays, lab reports, etc.
& reassures and/or comforts family
* in control of situation
* recognition of limitations
Impatient
Egotistic

Using computer assisted methods we were able to code the same text unit in multiple nodes, where it portrayed more than one behaviour, characteristic, or practice or if a section was co-constructed by multiple speakers, warranting a categorization into separate nodes. Multiple

nodes can thus be used for the same text being analyzed. These codes would include information regarding whether or not the individuals were male/female, young/old, physicians/nurses, etc. and, for example, what they were doing, such as taking a patient history or developing a diagnosis, in addition to behavioural traits, where applicable, like being empathetic towards the patient.

What became apparent in the early stages of analysis was that there were certainly similarities across television series, and more importantly, additional codes were being created that were not necessarily prevalent in other series, such as 'berating other personnel', 'berating peer', or 'briefing media' which were not applicable to observations in the 1950s, but became relevant in the 1960s. When this happened, we were required to review data that had previously been coded to insure that we had not missed any opportunity to generate such a code previously.

The use of such software programs in the investigation of social representations is also represented in the ability to create new data nodes. Given the dynamic nature of social representations, the use of such software allowing for the ongoing expansion of a coding tree is highly relevant. This means that as the representation is explored, data is available for analysis both on the micro level of episodes and series, but also on a larger scale of aggregation, like by decade.

As a point of interest, we sought to code out categories describing female physicians separate from 'all' physicians. To do this, each section was coded for all characteristics and behaviours present and the sex and age category (young/older) were added. Lower in the same section, a separate entry was created indicating female, age category, and then the characteristics or

behaviours applicable only to the female characters in the depiction. In this way, we have captured everything pertaining to all physicians as a general category and then a subset of these data as representative of only female physicians for comparative purposes, should such analyses be of interest at a later time.

Quantifying Qualitative Data

Following the coding of the field notes in ATLAS.ti, the data needed to be extracted in a way that displayed the code list and number of times each code was used for each season of the medical dramas. Quotes with codes displayed were exported for each season and each season was saved as a word document displaying the series, quote, and all codes applied to each quote. Limited by the way the data was organized within ATLAS.ti, it was not possible to produce a table of data that displayed each code and the frequency of use by each season of the television series.

To maintain accuracy and rigor, a Java program was written to capture the codes and collect the frequency of use by series season. These data were exported into excel. The program's collected tally was compared with frequencies available in ATLAS.ti, and the program was deemed to be accurate. The program afforded an accurate and rigorous means with which to port data between ATLAS.ti and Microsoft Excel, eliminating the risk of human error in calculating the output. Data maintained the original coding structure and the original Excel files were saved as read only, to prevent any accidental data loss.

For a coherent analysis, few categories are usually required and as such, the initial textual categories are integrated in conceptual categories by way of splicing and linking (Joffe &

Yardley, 2004). Splicing involves the fusing together of a set of codes under an overarching category (Joffe & Yardley, 2004) and we undertook the splicing of the data. This process involved going through all 153 nodes and grouping them together into various categories. We continued this data reduction process until six key categorical themes remained.

Table 5: Final overarching categories

Overarching Theme	Example of data captured within
Gathering information or applying knowledge	Physicians shown conducting physical exams, taking patient histories, formulating diagnoses, doing procedures, and discussion symptoms or treatment options with peers, patients, and patient families.
Physician portrayed as an authority figure	Perceived as the person in charge or providing leadership, includes giving orders or instructions, being needed to sign off on something, being in control of the situation.
Depiction as a caring individual	Physicians were shown reassuring or comforting patients, families, or peers or demonstrated empathy or compassion.
Shown to be responsible and/or dedicated	Shown to be suffering for their craft – rarely seeing their family/friends or taking vacation, being poorly paid, working long hours – and being committed to their profession - taking responsibility for their patients and patient preferences.
Portrayals involving their personal life	Instances in which physicians were shown discussing family issues or their relationships.
Negative portrayals	Portrayals of physicians who were quarrelsome, impatient, impulsive, difficult to work with, or rudely honest.

Multidimensional Scaling Analysis of Thematicized Observational Data

Data organized into the six thematic categories identified above were then analyzed as a proximity matrix, measuring similarity or dissimilarity among indicators in a data, using XLSTAT. Similarity matrices were constructed for each decade from the 1950s to 2000 and an overall

matrix was constructed of all the data to obtain an aggregate representation of the physician derived from all data collected.

Proximity matrices were then subject to multidimensional scaling analysis using XLSTAT.

An important aspect in the construction of MDS maps is the selection of dimensions for inclusion. The dimensions provide the most suitable description of the similarities matrix.

Usually a solution of two or three dimensions is selected, which are most easily interpreted and visualized (Purkhardt and Stockdale 1993).

The optimal number of dimensions for a graph can be determined on the grounds of statistical goodness-of-fit (Purkhardt & Stockdale, 1993). We used a Kruskal stress test on all graphs.

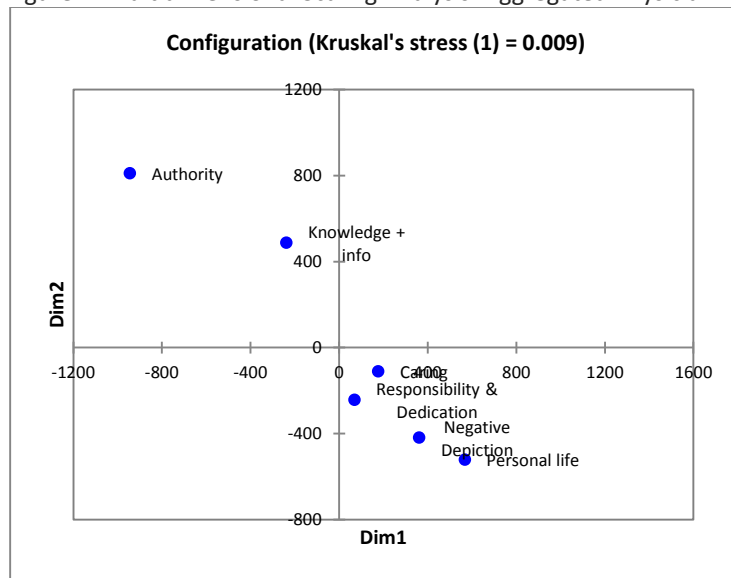
Stress measures how far the graph is from one that would be perfectly proportional (Bernard, 2006), providing a graph that reflects “some reality about the cognitive world” (Bernard, 2006, p. 683). Stress depends on a number of factors, included among these are the number of points (the higher the n , the higher the stress value), the dimensionality of the MDS space (the higher the m , the lower the stress), and error in data (more errors means higher stress) (Borg & Groenen, 2005). The stress measurement should be less than 0.15 for an acceptably precise MDS solution (Borg & Groenen, 2005), although others argue that anything below 0.10 allows the model fit to be considered satisfactory (Doise, Clémence, & Lorenzi-Cioldi, 1993a). All our stress readings were quite low, indicating that a two dimensional configuration was a suitable choice for the representation of the data and that changes to a single or three dimensional graph were unnecessary.

Having obtained the MDS map and verified that a two dimensional analysis was appropriate, the challenge then lies in interpreting the dimensions. In many cases, the interpretation of the dimensions can be identified by examining the spatial configuration in light of what is already known about the stimulus objects (Purkhardt & Stockdale, 1993). Where and how the indicators are presented geographically, and their proximity, are the primary aspects in evaluating what the graph means. Two points in MDS have a number of properties in common. These properties are relevant to MDS because they imply that proximities can be mapped into distances only if they too satisfy certain properties (Borg & Groenen, 2005). Thus indicators located nearest to one another are understood to be similar to one another (Kruskal & Wish, 1978). The underlying dimensions are thought to provide an explanation for the perceived similarity between items. Thus, those elements of the representation that are not only located proximal to each other, but in similar quadrants or similar dimensions are most like each other. We were thus required to identify not only which indicators were clustered proximally close to each other, but also to consider within which dimension and quadrant the indicators were presented.

The indicators, here the elements forming the structure of a social representation, judged to be similar to each other are closer together, while those that are less similar, are located further apart. This meant that not only were core and peripheral systems likely to be located on different dimensions, but their location in relation to each other on each dimension is also relevant. The two dimensional analysis allows us to begin defining the structure of the representation, with core elements likely to be separate from peripheral ones.

Thus if we examine the figure included as an example below, we can see that our data are located within four quadrants and on two dimensions. The elements of our representation, components of the core and peripheral systems of the social representation, are represented by points located geographically in Euclidean distance on the map. The points are approximately placed. The stress measurement, Kruskal's stress, is included to demonstrate the suitability of the two dimensional configuration.

Figure 1: Multidimensional Scaling Analysis: Aggregated Physician Data (1954-2010)



The spatial analysis provided by the MDS analysis groups the elements and places them in relation to each other in terms of similarity, but it alone cannot identify which of the elements represents the core system and which represents the periphery. As we mentioned earlier, for those using qualitative data as we have, a combination of knowledge of the data, frequency with which elements present themselves in the data, and relevant literature can serve as a basis up on which to determine core and peripheral systems.

In considering the ample literature on the sociology of the professions, it is apparent that physicians are considered to be an ideal or 'true' profession (Freidson, 1986; Johnson, 1972 ; Moore, 1970). During much of the 20th century, medicine's ability to regulate itself meant the exclusion or subordination of competitive occupations like chiropractics, midwifery, dentistry, pharmacy, and nursing (Coburn, 1998; Torrance, 1998). The autonomy afforded the profession of medicine meant that other medical occupation were placed under its control (Coburn, 1998; Torrance, 1998). This control of work, over profession practices and performance, are one of the means through which professions maintain their prominence (Freidson, 1971; Larson, 1977) and the division of health care work is enacted, ensuring that the roles of care are formed around the physician's knowledge and practice. As the dominant profession, the physician is the decision-making authority. It is the physician who determines whether or not an individual will be admitted to hospital or be discharged. Equally, it is upon the authority of the physician that individuals are put off work or able to access government or insurance payouts (Freidson, 1986).

One of the key features of a profession is that of a body of protected, expert knowledge, knowledge that only they have the right to dispense (Bell, 1999; Illich, 1977). In this way, physicians have based the establishment of hierarchies of authority in health care provision in expertise in knowledge, techniques, and skills. The technical competence of physicians rests on a body of systematic, scientific knowledge. In the actual application of this knowledge, other elements, such as diagnosis based on the vague and insufficient clues, manual examination, and the use of interpersonal relations are all applied. These various elements are intimately

connected with the main area of the physician's competence: medical knowledge and technical skill (Rueschemeyer, 1972).

The prevalence of aspects of controlling work and being authority figures, often centred in a discourse of domination and power, confirms the likelihood of authority figure being a core element in the social representation of the physician. The secondary element grouped with authority figure, application of knowledge and information, has also been shown to be a key component of what gives physicians their unique position as a traditional profession. The possession of this particular type of knowledge and application of particular techniques and skills is one of the ways in which physicians maintain their authority in health.

In terms of the peripheral elements, it is unsurprising that "caring" and "responsible and dedicated" appear at the top of the peripheral structure. In the case of health care professionals, their identity is heavily intertwined with caring - who they care for, how they care - and with the skills and knowledge they possess about diseases and treatments. Their ongoing interactions with others (practitioners, educators, patients) are a definitive component of the work they do, but the core category of "application of knowledge and acquisition of information" tended to cluster elements of professional practice. This peripheral element is centred on those practices that are centred around compassion, rather than treatment, as physicians reassure others, appear empathetic, and supportive of others. Compassion, like dedication, are both considered principles of medical ethics as stated by the American Medical Association and key components of the ABIM Foundation's medical charter (ABIM Foundation, 2002; Association, 2013). Their recognition in the charter reinforces what Carr-Saunders and

Wilson (1964 [1933]) argued when they noted that a sense of responsibility to the client is a key characteristic of professional ethics and the basis of a relationship of trust (Carr-Saunders & Wilson, 1964 [1933]). Dedication, through long-hours, low pay, long education process is considered a public symbol of a profession that requires hard work and dedication (Philibert, Friedmann, & Williams, 2002).

Peripheral elements are those that contribute to the meaning of the representation, but are more flexible and varied than the core elements (J.-C. Abric, 1994). The peripheral system is responsible for integrating information or practices that might be in contradiction with those of the core system (J.-C. Abric, 1994; Flament, 2001). This integrative ability is what would facilitate the existence of something contradictory, like the element ‘negative depiction’, for example, which may contrast with those elements “authority figure” and “application of knowledge and information”. When we examine some of the sub-coded elements that were included in the overall cluster of negative depiction (see Table 6), we see, for the most part that those categories that occur with the highest frequency tend to not be in contradiction with the core elements, for example physicians that are annoyed or frustrated or who are forthright when speaking with a colleague or patient. We also see, interestingly, the inclusion of lack of confidence or being unsure. This would describe situations in which newer residents were unsure of the path they were choosing to treat their patients, or a lack of confidence in their ability to perform a certain task. Far from being in contradiction with the core, this uncertainty and lack of confidence is part of the socialization process of the professional and the development of professional competence (Becker, 1961; Fournier, 1999). The peripheral system allows the representation of the physician to include elements that apply to some, but

not all physicians. In this way, physicians can be both confident and in-control authority figures, while some can also be unsure of their decision-making process, while still being perceived of as an authority figure.

While perhaps not an element of all social representations of physicians, given their pluralistic nature, representation as derived from medical dramas includes a peripheral element that is focused on the personal life of the physician. It is relevant to maintain this peripheral element, regardless of low frequency of appearance because behaviours and discourse around this element were occurring in the workplace, which was our area of primary concern. That physicians might discuss family issues or meet with a family member while at work is not irrelevant to their overall role as a medical practitioner. That the frequency tended to increase as time went on is supported not only by those who study prime time television arguing that physician portrayals became more human (Turow, 2010; Turow & Coe, 1985), but also by trends in medicine itself that suggest medical training and working hours must change (Duffin & Stuart, 2012; McCoy, Halvorsen, & Oxentenko, 2011; Philibert et al, 2002; Weizblit, Noble, & Baerlocher, 2009).

Table 6: Negative Depictions Occurring in Highest Frequency

Sub-coded Category	Frequency (All Episodes)
Annoyed or frustrated	282
Forthright	180
Impatient	93
Unsure or lacks confidence	86
Anger	82

Note: Sub-coded elements with a frequency of 50 or higher are shown. This frequency is calculated across all episodes in all series.

If we take frequency into consideration in examining the structure of our social representation and compare these frequencies with our findings from the literature, we can see that such an assessment indicates that data coded into “knowledge and information” and “authority” were higher in number than those coded into other categories. This is the case for all television series.

Table 7: Frequency of element mention in the data by series

	Knowledge & info	Authority	Caring	Responsibility & Dedication	Negative Depiction	Personal life
<i>Medic</i>	162	117	51	66	3	3
<i>Ben Casey</i>	331	452	141	261	110	15
<i>Dr. Kildare</i>	253	370	127	143	48	6
<i>Dr. Welby, M.D.</i>	396	585	228	179	57	9
<i>Emergency!</i>	260	427	63	67	28	2
<i>St Elsewhere</i>	501	953	304	357	124	39
<i>Chicago Hope</i>	609	1054	305	332	143	25
<i>ER</i>	1399	1851	542	523	242	64
<i>Grey's Anatomy</i>	922	1391	444	379	190	46
<i>Trauma</i>	379	753	204	148	119	5

The core thus consists of the “application of knowledge and acquisition of information” and the portrayal of the physician as an “authority figure”. Peripheral elements, “caring”, “responsible and dedicated”, “negative portrayal”, and “personal life” round out the representation.

Completing an MDS analysis for each decade allows us not only to identify how these indicators relate to each other proximally in each decade, but more importantly, they allow us to document changes in both systems that may be occurring over time. If we examine both Figure 2 and Figure 3 below, we can see that there have been changes in the spatial location of our

elements. Where they move within the map and which elements they are proximally close to tells us something important about the representation of the physician during particular periods of time and when and how elements are changing.

Figure 2: Multidimensional Scaling Analysis: Physician Data (1960s)

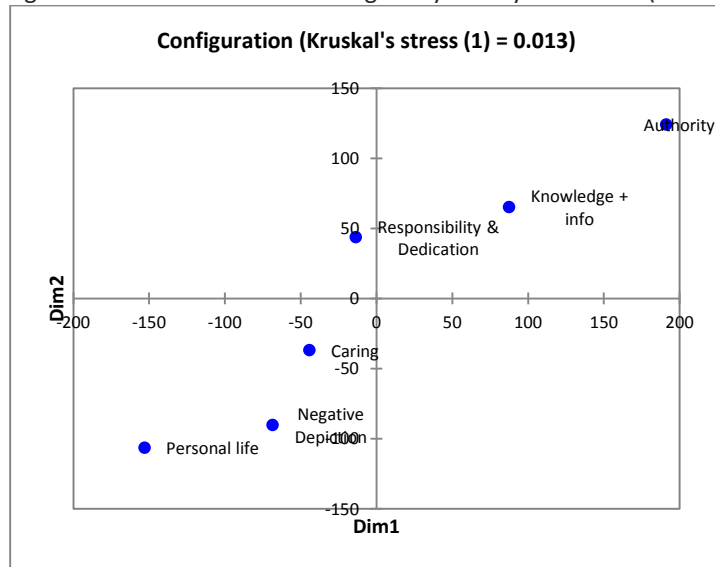
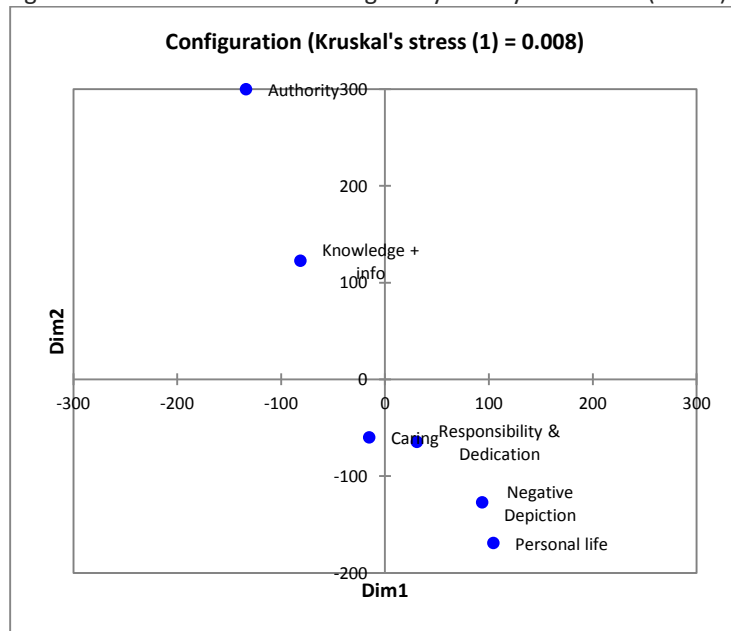


Figure 3: Multidimensional Scaling Analysis: Physician Data (1970s)



Conclusion

Moscovici (1982) and Farr (1993) have argued for the need for researchers to embrace the use of multiple methodologies in the study of social representations. Because social representations pervade all arenas of social life, the social researcher has a wide choice of contexts and methods of research. This project makes two methodological contributions. First, we have presented here a method for a dual layer analysis to facilitate the identification of the content and structure of the representation of the physician in televised media. Relying on the structuralist perspective of social representations, we have demonstrated that observational data, derived from media sources and analyzed with thematic analysis and a multidimensional scaling analysis, can identify the structure and content of a social representation. Second, we offer a methodology for studying the progressive transformation of representations by systematically accessing representations in the past (See article 2, chapter 5 for a presentation of this methodology in detail).

The methodology used in this project has allowed us to undertake the writing of three articles. The first article, *Social Representations of Physicians in Medical Dramas*, uses both methodological methods presented in this chapter to provide a description of the social representation of physicians and how this has changed over time. The second article, *A Method for Studying the Transformation of a Social Representation*, presents the premises of the need for such a methodology and the development of a model of analysis. Finally, the third article, *The Role of Space in the Reproduction of the Roles of Medical Professionals*, in which a study of

the use and meaning of space is undertaken, relies principally on data derived from our thematic analysis.

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Article One: Social Representations of Physicians in Medical Dramas: A Study of the Transformation of a Representation

Introduction

The purpose of this article is to investigate the transformation of the social representation of physicians over time as portrayed in televised medical dramas. Our social environment is formed of objects, which possess meaning and importance. While the significance of certain objects lies in the personal meanings they possess, there are other objects that have importance to a greater number of people (Moliner, 2001a). These social objects are objects that most people in a society would inherently possess some knowledge of. Physicians are arguably one such object. Those residing in Canada or the U.S., for example, would know something about physicians and their work, regardless of whether or not they have studied the profession or thought critically about the role they play in society. These types of social objects are commonly known and possess a shared, if multiple, meaning. This shared knowledge allows those communicating to identify the same social object and the meaning it possesses, facilitating conversation.

This shared familiarity with a social object and our ability to converse about it, knowing, at least generally, to what we are referring to is illustrative of Moscovici's theory of social representations. These representations are the culturally specific, common knowledge that societies, or groups within society, share, enabling them to communicate and orient their behaviour (Moscovici, 1982, 1988). A number of empirical and experimental studies have postulated or confirmed that social representations are dynamic, changing entities affected by social practices (Abric, 1971; Flament, 1994a), social forces (Butera, Huguet, Mugny, & Perez, 1994; Butera & Perez, 1995; Mugny, Moliner, & Flament, 1997), and ideology (Gaffié & Marchand, 2001). Other studies have confirmed that social representations can also be studied through their structural elements, both a core (stable element determining the meaning of the representation) and peripheral elements (flexible, allowing integration of information and practices which both protects and lends meaning to the core) (Abric, 1984, 1989; Abric & Tafani, 1995; Flament, 1984, 1989, 1994a; Guimelli & Rouquette, 1992; Moliner, 1989; Rateau, 1995).

It is the structural elements of representations that we wish to put into focus here. As a theory not only of social knowledge (Duveen & Lloyd, 1993; Jodelet, 1991; Moscovici, 2000), but of social change (Deaux & Philogène, 2001; Wagner, Duveen, Themel, & Verma, 1999), it is within this framework that we suggest studies of social representations need to be contextualized. Changes in social representations often occur through changes in social practices that shift the meaning of the representation over time. These changing meanings can be studied through the tracing of core and peripheral elements and their transformation.

The study of the evolution or transformation of social representations remains an understudied area in the field of social representations. There have been, to our knowledge, few long-term empirical studies of a social representation (Brondi et al, 2012; Chombart de Lauwe, 1971, 1984 ; Sammut et al, 2012). Such a historic perspective will allow us to explore the social representation of the physician as social object during the last 60 years. Our analysis is based on findings from an observational study of medical dramas televised in North America from 1954 to 2010. We follow the representation of the physician, presented as characters in televised medical dramas, to identify the social representation of physicians and to compare the evolution and transformation of the social representation of the physician across time. We will draw on a structural perspective of social representations theory and the literature on the transformation of social representations to identify changes in the social representation of physician and its meaning.

Theoretical Considerations/Methodology

This research places itself in the French structuralist approach to the study of social representations (J.-C. Abric, 1994; Flament, 1994b, 1994c; Guimelli, 1994b; Moliner, 1995). From a structuralist perspective, social representations are hierarchical cognitive structures comprising of central and peripheral systems (Abric, 1989; J.-C. Abric, 1994; Flament, 1987, 1989, 1994c). These two interdependent and complementary systems have specific functions: The core is a stable element that determines the meaning that a social representation has to individuals and groups, while the periphery protects the core (J. -C. Abric, 1994; Moliner, 2001a). Core elements are so strongly associated with the social representation that the

absence of such an element would radically change the meaning of the representation. The periphery, by contrast, is more flexible and adaptable, allowing for the integration of new information and practices derived from characteristics of individuals/groups and their context (Flament, 1989; Molinari & Emiliani, 1996). Organized hierarchically, these elements can exist close to, or further from the core. Elements closest to the core contribute to the concretization of the meaning of the social representation, while those further away from the core illustrate, explain, or justify the meaning (J.-C. Abric, 1994).

The core and peripheral systems are socially determined and are linked to historical, sociological, and ideological conditions (J.-C. Abric, 1994; Molinari & Emiliani, 1996). Under certain circumstances, these factors change, leading to a change in social practices that conflict with, or are in contradiction to, a social representation (Flament, 1989). Structurally speaking, the peripheral system is more susceptible to transformations than the core. The transformation of representations occurs most often in the peripheral system, protecting the core, while still allowing for the integration of different information and practices derived from characteristics of individuals/groups and their context (J.-C. Abric, 1994; Molinari & Emiliani, 1996). The periphery, by its very nature, serves to adapt the representation to shifting contexts by “maintaining the central meaning and the integration of new information without creating a large upheaval”(J. C. Abric, 1994a, p. 76, my translation). When social practices change, however, the result can be a change in the core of the representation, leading to true transformation. These changes in social practices can occur slowly over time as social practices that were once rare become more frequent, or abruptly, when practices are in contradiction with the representation, forcing a rapid change (Flament, 1989).

As noted above, the periphery is most susceptible to transformations. It serves to adapt the representation, maintaining the central meaning while integrating new information without having a large effect on the core (J.-C. Abric, 1994). The protective nature of the periphery indicates that social representations do not transform easily (Flament, 1989). How social practices change can affect which system, core or periphery, changes and how it changes. According to Flament, practices and situations can be reversible or irreversible and this will affect how social representations transform (Flament, 1987). Reversible practices are those that are temporary, causing temporary changes to representations. They slow changes to social representations and eliminate the chance of any change occurring to the core. We might consider, for example, attitudes regarding a recent tragedy that subside with time. These changes are often quick and forceful, but they are also frequently temporary. Irreversible, by contrast, refers to changes in social practices that are definitive and permanent. Irreversible changes will affect the representation, changing or adding elements, often affecting the core, and thus the overall meaning of the representation. Here we might think of changing perceptions of marriage to include same-sex couples.

The question of the transformation of social representations in media over time that we explore here is in the position to provide a unique perspective on the evolutionary process and requires further exploration of the factors involved in the transformation of social representations. Following Flament's (1987, 1989, 1994c) theory on the transformation of social representations, we recognize the important role played by social practices (J. -C. Abric, 1994; Flament, 1987, 1989, 1994c; Guimelli, 1989, 1994b) and acknowledge the need to examine social representations of physicians derived from televised media in the social,

cultural, and historic contexts of the time. The importance of this method can be found in the work of Flament (1989), who argues that it is not ideological discourse that influences the transformation of a social representation, but modifications to social practices. Flament presents three different cases for transformation of social representation for our consideration: Brutal, progressive, and resisted transformation. We discuss them briefly.

In the first, 'brutal transformation', new social practices contradict the current social representation, resulting in the brutal and radical transformation of the representation. When social practices exist in contradiction to a representation, this contradiction is taken into the peripheral system and 'rationalized', permitting the existence of the contradiction within the representation (Flament, 1989). When too many changes occur and when it becomes impossible to return to the social practices that existed prior to the introduction of so many contradictions, the field of the social representation must be changed. Flament (1989) emphasizes that this restructuration may not be caused by an entire population at once, but are sometimes first entrenched among certain groups, like youths, for example.

In the second form of transformation, 'progressive transformation', social practices that were previously rare become more prevalent. Peripheral elements progressively integrate these social practices into elements of the core, creating a change in the social representation, but slowly and over time. In this way, changes to peripheral elements can indicate potential future changes to core elements (J.-C. Abric, 1994) as peripheral elements existing near the core may eventually become core elements themselves. This can happen over time as certain practices

that were rare begin to become more frequent, and practices that were previously frequent become rarer (Flament, 1989).

Finally, the third form of transformation, 'resisted transformation', occurs when social practices change, affecting the representation, but the core remains the same. Much like early stages of brutal transformation, new social practices can conflict with current representations, presenting a contradiction. Whereas in brutal transformation multiple and ongoing changes in practice cause a change in the core, here such a change is resisted and the contradictions remain within the periphery (J. C. Abric, 1994b; Flament, 2001). This allows for the representation to remain the same, while also facilitating the ongoing repetition of the practices that were contradictory (Flament, 2001). It can also occur that the element of change becomes too much to be managed within the peripheral system, at which time, there is a change in the core (J. C. Abric, 1994b)

Examining social representations of physicians in televised media

Media is a tool of communication or a means through which human relations are mediated and social knowledge is created, transformed, and shared. With the advent of new technologies, mass media has come to occupy an increasingly central and privileged place in the lives of individuals in North American society. This renders sociological considerations of media all the more relevant as traditional forms of media, like television, expand their borders, finding their way onto new media like the internet and mobile phones, and making their way into the global community through translation and subtitling.

What appears in mass media is a representation of social knowledge and of society itself. It provides the basis upon which groups construct an 'image' of social objects, and to assign meaning and value and presents the representations and ideas that allow social reality to be grasped as a whole (Hall, 1977). Social representations can thus be understood as "systems of preconceptions, images, and values which have their own cultural meaning and persist independently of individual experience" (Moscovici, 1982, p. 122).

Although social representations may seem innocuous, static televised images of social objects, these representations have real social implications in that they mediate ideas and values (Hallam, 2000) and can have real world consequences (Howarth, 2006). As a form of communication, the media helps to create and reinforce social representations, transmitting portrayals of a particular reality (formed of particular images, values, etc.) that sustain not only beliefs in ideas and institutions, but also power relations (Hallam, 2000).

Medical dramas have a long history of popularity among the television-viewing public. Since the inception of the first medical drama, *Medic*, in the 1950s, there has been, through the years, a continuous supply of television shows with storylines centering on physicians and their work. The persistence of television carrying shows about physicians is not without cause. The public has had an ongoing interest in viewing shows about physicians, lawyers, and police officers, as demonstrated by longevity of such programs, millions of viewers tuning in each week, and the sheer number of such shows on television in any given year. The draw to televised media featuring these types of professions speaks to their importance as social objects and to the familiarity of their media-produced image to the public. From 2000-2009 there were 49

television shows featuring physicians available for televised or online viewing, more than at any previous time in history (Turow, 2010). We take this as a sign that there is a greater social significance to the social representations of physicians as they are portrayed in televised media than simply filling a character role in a narrative, and their continued study is most certainly worthwhile. Medical dramas provide the opportunity to explore the social representation of physicians that exists in society. We use them here because they are a good means with which to access transformations of representations in the past (N. Ward & M. Lévesque, 2014).

Sources of Televised Medical Dramas

Because there have been such an extensive number of medical dramas over the years, it would be outside the scope of this project to review them all. We thus examined a sample of shows that provide coverage through the decades. Television dramas dating from the 1950s to present time were identified by examining a list compiled by Turow (2010). Seeking to compile a representative sample of television series from Canada and the United States, French medical dramas airing in Quebec were included.

Shows were selected based on several factors. Series had to be a physician-driven medical drama set in North America, excluding soap operas, reality television, and shows focused on private lives. Hospital settings were chosen for their ongoing prevalence in medical dramas on television, although with older shows some interaction between hospital and general practice was accepted based on the limited options. Additionally, the hospital-centric shows had to be a case of normal practice, excluding series like *House*, which, while widely popular, was not a physician working in a typical setting with a regular practice. This choice of consistent context

was made deliberately to better show variation in portrayals of physicians, if variations did indeed exist. Shows included in the study had to have been popular, as demonstrated by their longevity, and available in a viewable format including televised reruns or current presentations and DVD or VHS format. Medical dramas were chosen specifically because of their continued presence on television. They formed the earliest style of televised media portraying physicians (beginning in the 1950s) and we sought to longest possible timeline to assess physician portrayal. Popularity was important because it meant that the show could be viewed over a longer stretch of time, providing a better representation of the portrayal of physicians during that timeframe. Because our interest was in the work that physicians do, our sample was limited to shows focusing on patient care in the workplace and not on the home/personal life of the physician. Some limitations were identified for both the 1950s (availability of series) and the 1980s (suitability of options). The 1980s featured several highly celebrated television shows featured physicians (The Cosby Show, i.e.), but did not fit the criteria for the study. Finally, accessibility to the television shows had to be possible. This proved difficult, particularly in accessing earlier television series (1950s, 1960s), in which re-runs were not airing, DVDs/VHD were not available for public purchase, and searches of private sites like eBay, forums like those on IMDb turned up no availability. In addition, we have been able to obtain only one French medical drama produced in Quebec (Trauma 2010). Where many options were presented, we have selected the most popular and longest running shows in North America, noting that longevity and/or popularity indicates that the show has been able to communicate a particular stylized representation of physicians and the work they do to large numbers of the public.

Where shows were not accessible, for example City Hospital, airing from 1951-1953, one medical drama (Medic, airing 1954-1956) was used to represent the decade.

Medical Dramas Observed

Program	Network	Air Dates
Medic	ABC	1954-1956
Dr. Kildare	NBC	1961-1966
Ben Casey	ABC	1961-1966
Marcus Welby	ABC	1969-1976
Emergency!	NBC	1972-1979
St. Elsewhere	NBC	1982-1988
ER	NBC	1994-2009
Chicago Hope	CBS	1994-2000
Grey's Anatomy	ABC	2005-present
Trauma	Radio-Canada	2010-present

Data Collection

Television is a medium that cannot be analyzed purely on models of conversation. The presence of strong visual dimensions used in the construction of the story narratives and the importance of action to social representations make it imperative to capture not only what people are saying, but what they are doing. This is also true of social representations, which are identifiable both through spoken word and social practices (Moscovici, 1988; Wagner, 1998). For this reason, we opted to use observation as our primary data collection method.

Observations included events occurring during the episode (patient-physician encounters, practitioner-practitioner encounters) and behaviours (ways of treating others, physical

mannerisms, actions). Five episodes from the early years and five episodes from the late years of the chosen medical dramas were observed. For those series progressing nine or more seasons, we also observed five episodes from a midpoint season to assess any change over time. A total of 100 television episodes were observed and documented, totalling 92.5 hours of viewing time. Capturing physician portrayal and behaviours in televised media over a 60 year timeframe should provide us with a sufficient dataset for identifying the social representation of physicians. Including more than one season and episodes from early and later years will allow us to present a more comprehensive portrayal of physicians over time.

Data Analysis

Qualitative data analyses were conducted systematically following the data-driven approach of Boyatzis (1998). Thematic analysis facilitates the classification of data and the identification of themes or patterns. In our structural analysis of social representations, thematic analysis allowed us to categorize the data and translate our qualitative observation findings into quantitative data (Boyatzis, 1998).

All field notes for each television series were saved as a single Microsoft Word document and loaded chronologically into ATLAS.ti; comprising of 10 primary documents yielding 902 pages of field notes. These data were then manually coded into broad categories, such as 'depiction of physicians', 'depiction of nurses', for organizational purposes. All data coded in the section 'depiction of physicians' were then compiled, downloaded, and saved as a separate file. To further reduce the raw data, these larger documents (still organized by series) were then assessed and streamlined into an outline in which key activities, affect, thoughts and emotions

are considered as potential themes. Following Boyatzis, these outlines serve to prevent premature identification of themes and make it easier to compare across units of analysis. This outline, or list of attributes as we refer to it, was created to further synthesize the data. These attributes were created in part by conducting a review of the literature (both medical and social science) regarding attributes of physicians (both desirable and not) and in part derived iteratively from the data (Fife-Schaw, 1993). This particular type of categorical coding facilitates the quantification of data, leading to a quantitative phase of data analysis. Quantified data were entered into an excel document displaying the series, codes, and frequencies.

The object of the final analysis was to obtain a structural visualization of the quantitative findings to facilitate the identification of elements making up the core and periphery of the social representation. Used to explore the structure of a social representation, multidimensional scaling, conducted in XLSTAT, allowed us to identify the elements that form the core and periphery of the social representation of physicians and to examine how these elements changed over time. We applied multidimensional scaling, providing a visual representation of the pattern of proximities among clustered objects. Multidimensional scaling, used in the analysis of social representations (Doise et al, 1993b; Foster, 2001; Stockdale & Purkhardt, 1993), is a descriptive technique for proximity relations that can be used to visualize the structure individuals impose on objects, events, and situations in their environment (Heiser & Busing, 2004; Krustal & Wish, 1978). This method uses similarity or proximity data and uses a pairwise similarity judgement to construct a geometric representation of the set of objects on a map. Objects that are perceived to be similar to each other are placed near each other on the map and likewise, those that are dissimilar are placed at a distance from each other.

Findings

Televised medical dramas transmit a number of portrayals of physicians. Observers of these programs will note a repetition of themes, of situations they encounter, or similarities between characters, even between decades. It is difficult to escape the impression that these characters, though numerous and more diverse as time goes on, all conform, more or less, to a number of narrow types or even, an ideal type. We begin by presenting aggregate data from all series to present an overall representation of the representation of the physician, followed by discussing the data over time. Presented by decade, these data serve to demonstrate the transformation of the representation over time.

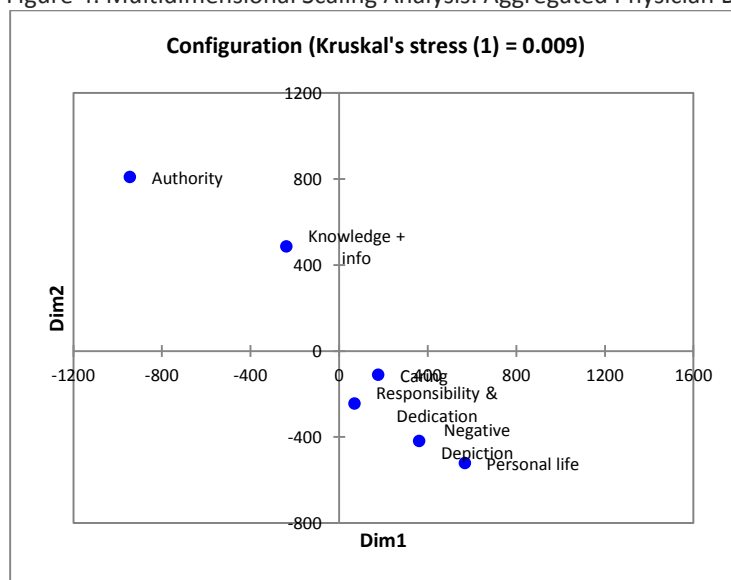
Representation of Physicians (1954 - 2010)

To identify and properly illustrate the structure of the field of representation and its dimensions, we applied multidimensional scaling to our data, seeking to determine the structural components of the social representation of physicians in televised media. This enabled us to give a more definitive structure to our social representation. Our low stress test readings indicate that a two dimensional configuration was a suitable choice for the representation of the data. Stress measures how far the graph is from one that would be perfectly proportional (Bernard, 2006), providing a graph that reflects “some reality about the cognitive world” (Bernard, 2006, p. 683). What is of importance in an MDS map is not the orientation, but the distance between described elements, those indicators being located nearest to one another are considered similar (Kruskal & Wish, 1978). The underlying dimensions are thought to provide an explanation for the perceived similarity between items.

Thus, those elements of the representation of the physician that are not only located proximal to each other, but in similar quadrants or similar dimensions are most like each other.

Since data were plotted with low stress levels onto two dimensions, rather than on a single continuous dimension, we seek two arrays or dimensions of the object of our analysis. The two dimensional analysis allowed us to begin defining the structure of the representation, with core elements likely to be separate from peripheral ones. Additionally, to facilitate the identification of these two systems, one must keep in mind that elements judged to be similar to each other are closer together, while those that are less similar, are located further apart. This means that not only are core and peripheral systems likely to be located on different dimensions, but their location in relation to each other on each dimension is also relevant. Interpreting the relationship between the elements thus involves examining the spatial configuration in the context of what is already known about the indicators.

Figure 4: Multidimensional Scaling Analysis: Aggregated Physician Data (1954-2010)



MDS provides a representation of the relationships given by the data. A relationship exists between items <authority figure> and <knowledge and information> (Figure 1), illustrated by their location on the same dimension, their relative nearness, and the distance that they exist from the other elements. <Authority figure> (authority on the map), captures those aspects of working as a physician that are involved in being perceived as the person in charge or providing leadership. Physician portrayals included giving orders or instructions to peers and other personnel, being needed to approve or sign off on things, or being the person to whom things needed to be reported to. Physicians were shown to be in control, making decisive decisions, taking initiative, being in charge of others (both peers and other personnel), and being in demand - often called away from what they are doing to take care of something else. Application of knowledge and acquisition/sharing of information, represented on the map as <knowledge and information>, is characterized by portrayals and behaviours that had the physician applying their knowledge or gathering information from the patient, the patient's family, and other colleagues. Physicians were shown discussing symptoms or treatment options with their peers, and explaining treatment options to the patient, family, and peers, conducting physical examinations of patients, taking histories, formulating diagnoses, prescribing treatment or doing procedures. This captures the essence of the medical work of physicians as it revolves around interpreting information, diagnosing symptoms, and resolving the issue via treatment or surgical procedure.

Located more distantly from these two elements were the final four elements forming the representation of the physician in televised media. This included <caring>, <responsibility and dedication>, <negative depiction>, and <personal life>. These elements formed two separate

clusters indicating a closer relationship between <caring> and <responsibility and dedication> and <negative depiction> and <personal life>. <Caring> is a combination of portrayals of physicians reassuring or comforting patients, families, or peers. They are shown being caring, demonstrating compassion or empathy. <Responsibility and dedication> groups aspects of physician work that involves suffering for one's craft - rarely seeing family/friends, infrequently taking time off, being paid poorly, being overtired because of long hours - and being committed to their profession, taking responsibility for their patients and patient preferences. The final pair <negative depictions> and <personal life> capture portrayals of physicians who were quarrelsome, impatient, impulsive, difficult to work with, or rudely honest (<negative depiction>) and represented instances in which physicians were shown discussing family issues or discussing their relationship or were shown flirting or were blowing something dramatically out of proportion (<personal lives>).

Here the elements <authority figure> and <application of knowledge and acquisition/sharing of information> are clearly placed separately from the other elements, indicating their importance to the core of the representation. Given the distance between <authority figure> and <application of knowledge and acquisition/sharing of information>, it can be suggested that the core consists of two elements: <authority figure> and <application of knowledge and acquisition/sharing of information>. These two elements provide the structure of the representation, giving meaning to the peripheral items. Peripheral elements located on a separate dimension were distanced in groupings of two, with <caring> and <responsibility and dedication> located more closely to the second dimension than <negative depiction> or

<personal life>, suggesting that <caring> and <responsibility and dedication> are highly important peripheral element.

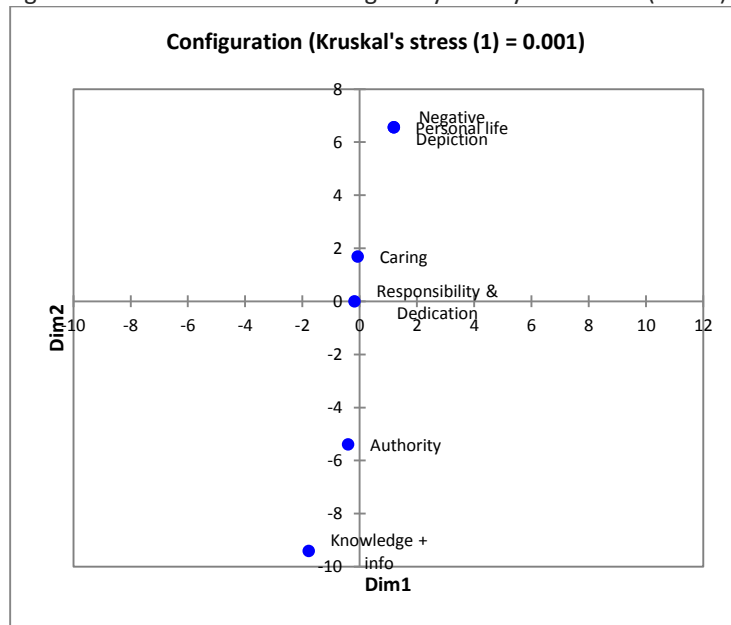
Representation of Physicians by Decade

Studying the transformation of a social representation creates methodological challenges (Moliner, 2001d; N. Ward & M. Lévesque, 2014). Here we have presented the data by decade in an effort to capture the social representation as it would have approximately existed in society at the time. These groupings facilitate the identification of the transformation of the representation, allowing us to identify any movement in the structural elements over the course of each decade.

The 1950s provides the first opportunity to gather television-based data regarding physician portrayal in medical dramas. Observations elicited a representation of physicians doing work involving the <application of knowledge and acquisition/sharing of information>, appearing as <authority figure>, and physicians shown in ways that could be described as <dedication and responsibility> or <caring>. Negative depictions of physicians and the discussion of their personal lives was not prevalent, and thus appear at a greater distance from the other pairings. Dimensional analysis places the pairing of <application of knowledge and information> and <authority> on the first dimension, at a distance from the other elements located on the second dimension. The distance from the other elements, in addition to their presence on a separate dimension reinforces their status as the core of the representation. <Caring> and <responsibility and dedication> are the first peripheral elements proximal to the core, with

<responsibility and dedication> located very near to the dimension upon which the core elements are represented.

Figure 5: Multidimensional Scaling Analysis: Physician Data (1950s)

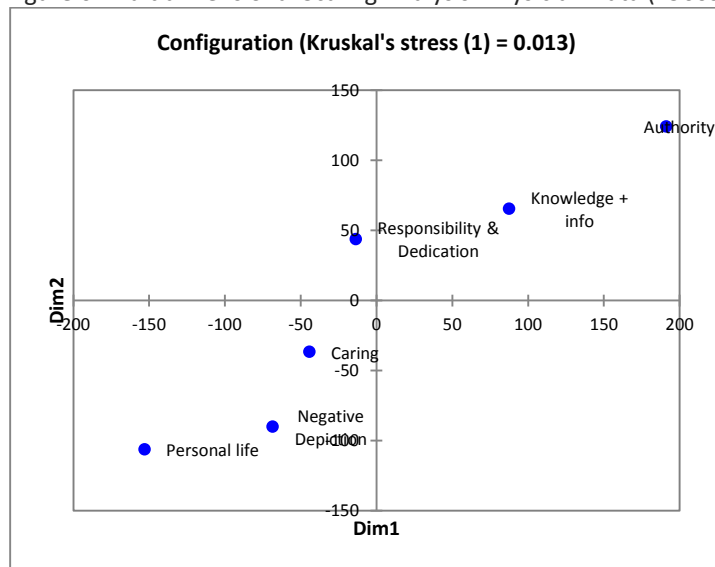


Data acquired from medical dramas of the 1960s suggest a time of change. While the same three elements (<authority>, <application of knowledge and acquisition/sharing of information>, and <responsibility and dedication>) are present on a different dimension from the others, their order has changed, suggesting a shift in social practices. <Personal life>, <negative depiction>, <caring> all appear on the first dimension, while <responsibility and dedication>, <knowledge and information>, and <authority figure> appear on the second. The elements <application of knowledge and acquisition/sharing of information> and <authority figure> have changed places from where they were located a decade earlier, and <responsibility and dedication> is now located on the same dimension as the other two elements, suggesting

an increased similarity in the relationship between <caring> and <responsibility and dedication> as there is between <responsibility and dedication> and <knowledge and information>.

<Responsibility and dedication> is also located in the left quadrant, separate from the other two elements, that because of its position within the left quadrant and its proximal distance, as mentioned earlier, between both <caring> and <knowledge and information>, that it remains a peripheral element, but one that is positioned high on the structural hierarchy.

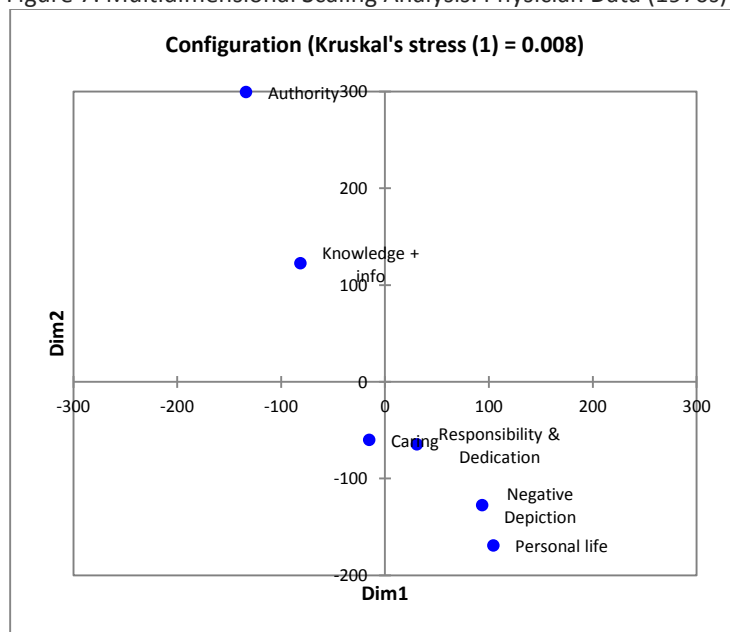
Figure 6: Multidimensional Scaling Analysis: Physician Data (1960s)



In the 1970s, a definitive shift has occurred in which <authority figure> and <application of knowledge and acquisition/sharing of information> retain their status as core elements in the second dimension, but <responsibility and dedication> has become proximally distant to the core, being situated more closely with the peripheral elements, particularly <caring>. There is now more distance between the core elements and those located within the peripheral system than there were in the 1960s. A distinct clustering of the peripheral elements has developed,

pairing <caring> and <responsibility and dedication>, though <caring> is now located within a different quadrant than the other peripheral elements, suggesting that although <caring> and <responsibility and dedication> are more similar to each other than to other elements, there is still something unique about <caring> that makes it slightly different from the other elements. Both these peripheral elements are located distantly to peripheral elements <negative depiction> and <personal life>.

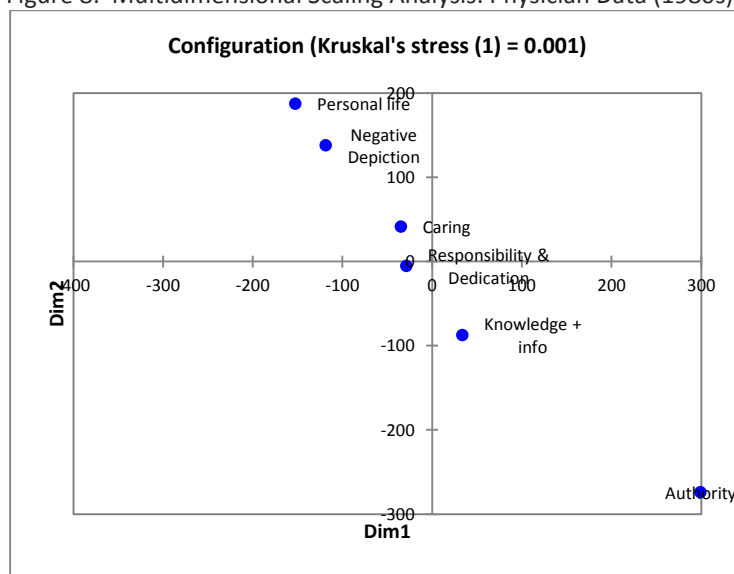
Figure 7: Multidimensional Scaling Analysis: Physician Data (1970s)



The shift identified in the 1970s, is intensified in the 1980s. <Authority figure> is not only still an element of the core, but it is also presented at a significant distance from all other elements. While still located in the same quadrant on the same dimension, <application of knowledge and acquisition/sharing of information> is located more distantly from <authority figure> and is now situated more closely to the peripheral system. <Responsibility and dedication> has shifted again, positioned this time, as it was in the 1950s, on the cusp of both dimensions. Given that

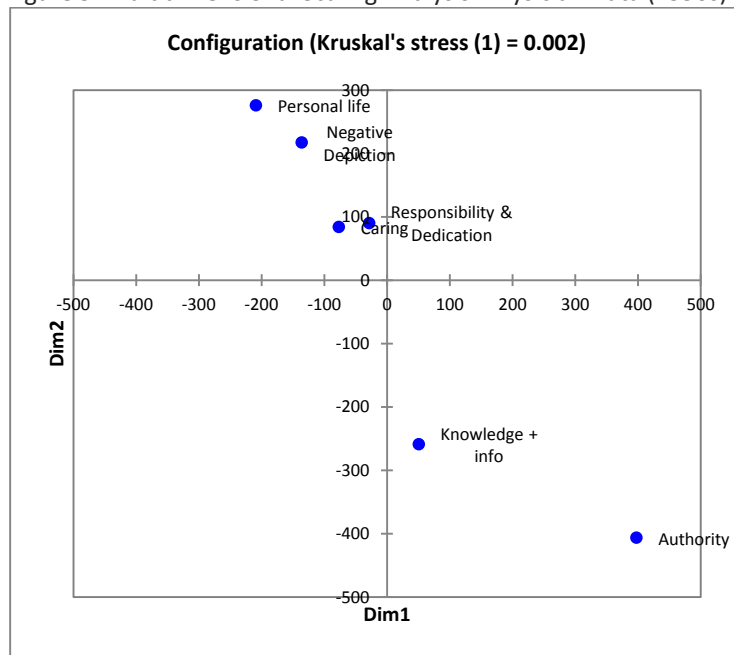
the points used to indicate positionality are approximate, we cannot be certain of exactly which dimension the element occupies, but that regardless of this, it likely remains an important peripheral element. While <caring> has moved more closely to <responsibility and dedication> in relation to the core elements, <negative depiction> and <personal life> have moved further away.

Figure 8: Multidimensional Scaling Analysis: Physician Data (1980s)



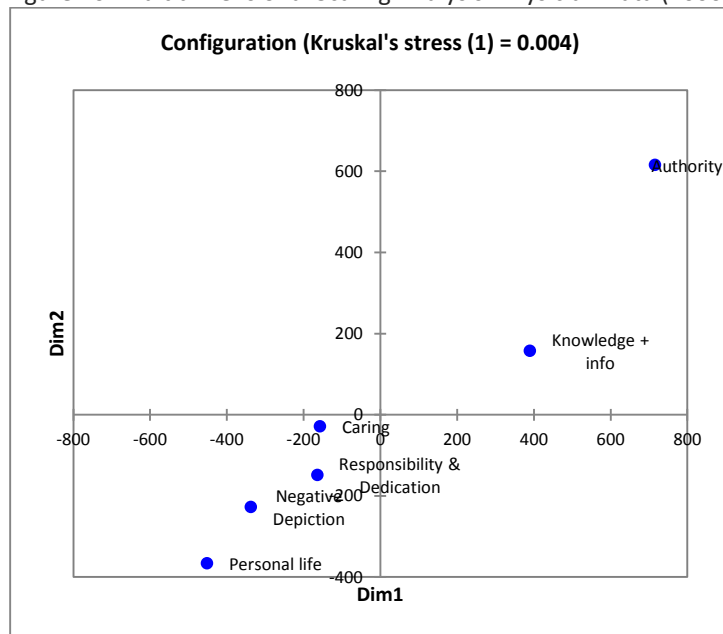
While the relationship between <authority figure> and <application of knowledge and acquisition/sharing of information> do not change from the 1980s to the 1990s, they are now located more closely together than they were in the 1980s. Among the peripheral elements, where previously <responsibility and dedication> bordered both dimensions, while retaining its status as a peripheral element, it has now retreated further from the core elements and closer to <caring>, which has remained in roughly the same location. <Negative depiction> and <personal life> have remained as distant from the core as they did a decade earlier.

Figure 9: Multidimensional Scaling Analysis: Physician Data (1990s)



Observations of physicians in medical dramas in the 2000s retain the position of the core, <authority figure> and <application of knowledge and acquisition/sharing of information>, while the peripheral elements have shifted again from their position in the 1990s. <Caring> has moved much closer to the dimension of the core and in doing so, increasing the distance between itself and <responsibility and dedication>. This is the first time that <caring> has been located so close to the dimension of the core elements. Elements <personal life> and <negative depictions> remain distant from the core, though <negative depictions> does appear to have moved slightly closer to <responsibility and dedication>.

Figure 10: Multidimensional Scaling Analysis: Physician Data (2000s)



There appears to be a strong trend of physicians being considered authority figures who apply their knowledge and gather information (core element). This core structure provides much of the meaning for the representation, but <responsibility and determination> is so closely situated to the core that it can be considered to be informing our interpretation of the meaning of the core as a highly influential peripheral element. The relationship between these three elements remains somewhat similar in the 1960s, although here <responsibility and determination> has transitioned into the second dimension upon which the core elements are located. The importance of this peripheral element cannot be overlooked, particularly in terms of the relationship it has with the core elements, but as we argued above, although it is located on the same dimension as the core elements, its location in a separate quadrant suggests that it is still a peripheral element and not yet a core element functioning at the level that <authority figure> and <knowledge and information>. These two core elements have shifted positions,

with <authority figure> now being furthest away from the peripheral elements. This positioning remains consistent from the 1960s onward, though after the 1970s, the relationship is an exclusive one as no other element finds itself located on the dimension with the core elements.

These data suggest that between the 1950s and 1970s there was a shift in the representation of physicians in medical dramas. The shifting relationship between <authority figure>, <knowledge and information>, and <responsibility and determination> indicates a change in social practices throughout this time period, manifesting themselves most visibly in the 1960s when <responsibility and determination> becomes a potentially viable element for the core of the representation. The structure of the representation remains the same, but the elements <authority figure> and <knowledge and information> have exchanged places, with <authority figure> securing its position most distantly from peripheral items.

We note with interest that from the 1960s onward the peripheral elements closest to the core - <responsibility and dedication> and <caring> - continue to shift positions both closer to and further from the core elements, and also among themselves, with <responsibility and dedication> giving way to <caring> in the 2000s. According to Abric (1994), peripheral elements are arranged hierarchically, such that those closest to the core are engaged in solidifying the meaning of the representation, while those further away illustrate or justify the meaning. This suggests that since the 1960s, the overall *meaning* of the representation has been the same, regardless of social upheavals and practice changes. When considered together both representations, the overall aggregated and the presentation of data by decades, suggests that there is something unique about the elements <authority figure> and <knowledge and

information> and their ongoing relationship in the early decades, with the peripheral element <responsibility and dedication>.

Discussion

Findings from this multidimensional scaling analysis suggest that the core structure of the social representation of physicians in televised media converged early, while peripheral elements that were positioned highly in the structural hierarchy continued to shift positions and diverge over time. Overall our analysis found strong support for the presence of a consistent core system in the representation, with a slowly, but continuously changing peripheral system. Findings presented in Figures 1-7 demonstrate that core elements in the structure of the representation included <authority figure> and <application of knowledge and acquisition of information>. <Authority figure> was most often located at a great distance from the peripheral elements and once this element was positioned so distantly, it remained so, suggesting it is a strongly associated core element. We note that this mention of distance is a difference of degree, rather than kind, a result of the spatial/dimensional approach chosen in this analysis and less about the actual placement of the elements in the representation (one element is not more 'core' than another, as it were, functioning instead as a system). It could be argued that this spatial/dimensional analysis was much more important to our analysis of the peripheral system, which, unlike the core, continued to shift both between dimensions, and in distance to the core elements.

As discussed previously, the peripheral system is the more flexible component of a representation and is subject to changes that, in many cases, protect the core from undergoing

substantial changes, and thus, protecting the overall meaning of the representation. While there is a lot of movement within the peripheral system, these elements remain consistent throughout the decades studied, with no new elements becoming present. These elements were perceived to move around a reasonable amount, with our MDS analysis showing the most movement occurring around <caring> and <responsibility and dedication>. <Responsibility and dedication> was arguably the element that was of most interest in our analysis of the peripheral system. It was located, at times, quite near the dimension upon which the core elements were located and in the 1960s, was actually located on the same dimension. The analysis of this element was of particular interest because its transition onto that additional dimension gave it a distinctly different status than that accorded to those elements further from the core. The question then became one of how to determine its position within the representation. Located as it was on the same dimension as the already determined core elements, it could have been suggested that it had successfully made the transition into a core element. Indeed, its previous location in the 1950s as ambiguously on, but not on, the cusp between the two dimensions could have been an indication that it was a peripheral element making the transition into a core element, in a progressive manner discussed by (Flament, 1987, 1989, 1994c). Exactly where the point is located is difficult to determine exactly, because its placement is at best approximate in MDS. A closer analysis of this element led us to suggest that it had not actually made the transition into a core element. We determined that it was not only the location of an element on one dimension or another that affected where it fell in the representational structure, but also its placement. As noted above, MDS captures the relationship between elements and places it in space in a visually accessible manner. There is

obviously a relationship between these elements, given their location, but <responsibility and dedication> is still also linked to <caring>, the distance between <responsibility and dedication> and other peripheral and core elements being roughly equal. More importantly, however, <responsibility and dedication> was located on a separate quadrant than the other core elements, indicating that there was still a difference, a measure of dissimilarity that made it similar to, and yet still distinctly different from, those elements defined as core structural elements of the representation.

Our study presents an interesting empirical example of the internal fluctuations of a social representation over time. The structuralist perspective used to frame this study offers a unique perspective that makes visible the multiple elements, both core and peripheral, that make up a representation. When combined with multidimensional scaling, this approach to social representations provides the opportunity to map changes and subtle movements within the structure of a representation over time, here over a sixty year timeframe. These structural elements, when combined with an analysis method like the one used here, provides researchers with the ability to analyse the subtle shifts occurring within a social representation external to larger changes that might occur within the core to change the overall meaning of the representation. As we know, movement within the peripheral system is often a result of changes in social practices. We can assess the effects of these changes in social practices when examining representations at the level we have presented by noting the changes occurring within the peripheral system, as demonstrated by our analysis of the element <responsibility and dedication>.

These findings are potentially significant because they suggest that changes in social practices, even resulting from larger social changes like patient movements, battles over health insurance, increased access to technology in the practice of medicine, and technology-facilitated changes to professional practices (Brandt & Gardner, 2000; Lock, 1997; Ramsden, 2011), may not always be discernable at a higher level analysis of a social representation because the core of the representation remains the same. A structuralist approach and an exploration of representations can make visible more subtle changes occurring only within the peripheral system that are clearly indicative of changes in practices, but not brutal changes that affect the overall meaning.

Conclusion

This article has sought to add to a growing body of literature that examines the transformation of social representations, in this case by looking at televised medical dramas. Our findings suggest that there has indeed been change within the social representation of physicians in media in the past six decades, but that the most significant change occurred within the peripheral system and happened early, and that subsequently, the overall meaning of the representation has remained the same, regardless of social changes, changes to professional practices, and social practices. Finally, our methodology provides an alternative to those seeking imbed their study of social representations in a historical context that is not overly reliant on data collection methods that may draw too heavily from information available to participants only at this particular moment in time.

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Article Two: A Method for Studying the Transformation of a Social Representation

Introduction

Social representations are increasingly becoming an area of study in the social sciences, but the methods used for identifying and describing social representations have presented a recurring challenge (Emler & Ohana, 1993) and are a point of criticism (Jahoda, 1988). It has been argued that “specifying the methods appropriate for the examination of social representations is difficult because there are complexities and ambiguities in their theoretical formulation” (Breakwell and Canter 1993: 1), following Moscovici's encouragement that the theoretical concepts of social representation theory should not be tied to any particular empirical procedure, but should instead encompass a "methodological polytheism" (Moscovici, 1982).

Social scientists studying social representations continue embrace this call to methodological polytheism, using a broad range of methods including interviews (Herzlich, 1973; Jodelet, 1984a; Molinari & Emiliani, 1990) and free association techniques (Gomes, de Oliveira, & de Sà, 2008; Lahlou, 1996; Vèrges, 1987, 1992). Participant observation has been used to study madness

(Jodelet, 1991) and motivated ethnography has been used to study children's gender representations (Duveen & Lloyd, 1993). Experimental and laboratory methods have also been highly popular, particularly among those studying the structure of representations (Abric, 1984, 1989; Codol, 1984; Duveen & Lloyd, 1986; Emler & Dickenson, 1985; Flament, 1984; Lahlou, 1996; Lloyd & Smith, 1985). The confusing state of research methods in the study of social representations has led to the publication of several key works on methodology, methods, and analysis (Abric, 2003; Breakwell & Canter, 1993; Doise, Clémence, & Lorenzi-Cioldi, 1992; Doise et al, 1993b) that outline some of the ways in which researchers have undertaken the identification and exploration of social representations.

Moscovici (1984b) has suggested some methodological 'rules' for studying social representations. He writes that when studying a representation, social scientists should always "try to discover the unfamiliar feature which motivated it and which it has absorbed. But it is particularly important that the development of such a feature be observed from the moment it emerges in the social sphere" (Moscovici, 1984b, p. 28). This is often problematic, however, given that many phenomena already exist in the social sphere and have already had their relevance and meaning established, suggesting that Moscovici's methodological 'rules' have to be extended to cover methods capable of retracing the emergence of a phenomena. Indeed, some have already undertaken the study of representations as they existed in the past (Chombart de Lauwe, 1971, 1984 ; Guimelli, 1989, 1994b), though it remains an understudied area in the field.

This article is concerned with the issue of how to study the transformation of a social representation, particularly that of a social phenomenon that has been in existence for a long

duration. Given that memory alone is not reliable enough to work backwards longitudinally, we sought to further the methodological options available to social scientists by proposing a method for systematically accessing social representations in the past through the observation of televised media and studying the subtleties of their transformation over time using a multidimensional scaling analysis.

Social Representations

Our article situates itself in the approach to social representations developed by Serge Moscovici (Moscovici, 1976), who defines social representations as:

A set of concepts, statements and explanations originating in daily life in the course of inter-individual communications ... the equivalent, in our society, of the myths and belief systems in traditional societies; they might even be said to be the contemporary version of common sense (Moscovici, 1981, p. 181).

A representation is the product of “processes of mental activity through which an individual or group reconstitutes the reality with which it is confronted and to which it attributes a specific meaning” (J.-C. Abric, 1994, p. 13). However, it is more than just a reflection of that reality. Social representations are symbolic reconstructions, rather than simple reproductions (Purkhardt, 1993) that construct social reality, orient behaviour and social relations, facilitate communication, and manage the incorporation of new phenomena. As social knowledge, representations are constructed across individuals, groups, and institutions as symbolic and dynamic systems of representations that meld “both cognition and behaviour” (Moloney, 2007, p. 62). They are also socially shared - transmitted through culture, education, and social communication - creating meaning and shaping how we think about our social reality (Moscovici,

1984a, 1984b). Moscovici (1973) described the function of social representations as one that establishes an order enabling individuals to orient themselves and master their material world and to facilitate communication by providing a code for naming and classifying aspects of their world.

As an analytical tool, social representations are good to think with because they allow researchers to understand the interactions between individuals and the social conditions within which social actors exist (J.-C. Abric, 1994). It allows us to identify and explore the construction and conceptualization of a social object as it relates to particular groups and across individuals. As symbolic reconstructions of social objects in a particular time and place, social representations have the capacity to change, being in perpetual movement (Moliner, 2001d) as they are re-negotiated, transformed, and changed.

As dynamic entities, representations continually undergo changes that are “not accidental, but part of its essence” (Rouquette, 1994, p. 179). These changes can be subtle, or they can bring about a change in the meaning of the representation. Studying these changes, particularly over longer periods of time, offers much to those interested in understanding the representations of established social representations. Undertaking the study of the history and transformation of social representations can be informative not only for what it tells us about social representations, but also for what the transformation of social representations can tell us about society and social practices. Our own focus in our studies of social representations has been on the structure of social representation in media and subsequent transformation(s) over time (N. Ward & M. Lévesque, 2014).

The transformation of a social representation occurs when changes in society, culture, or practices bring about new meanings, new ways of conceptualizing of social objects. The transformation of social representations can be considered from two angles: A change in the structure of the representation and a change in the meaning. Both of these aspects can be studied from a structuralist perspective, which allows researchers to determine the structure of a representation to identify changes over time. Among those working with social representations in the tradition of Moscovici, a group of theorists (J.-C. Abric, 1994; Flament, 1994b, 1994c; Guimelli, 1994b; Moliner, 1995) have made identifying and understanding the structure of the representation part of their key focus and work under the premise that in order to fully understand a social representation, we must identify not only the content of the representation, but also its structure (J.-C. Abric, 1994).

A Structuralist Perspective of Social Representations

The structuralist perspective posits that each social representation possesses both a core and a peripheral system, working in an integrated, interdependent manner to provide the structure and meaning of a given representation. The core is a stable system that defines the meaning of the representation to groups and individuals (J. -C. Abric, 1994; Moliner, 2001a). By contrast, the peripheral system is variable, with heterogeneous content. The periphery allows the integration of different information and practices derived from characteristics of the individuals and their context (Molinari & Emiliani, 1996). They contain opinions, descriptions, and beliefs about the representation and constitute the interface between the core and the concrete situation in which the social representation is developed and operates (J.-C. Abric, 1994, p. 25). The elements

(information, beliefs, opinions, values) that form the core and periphery are organized and structured in a hierarchy serving to determine the meaning of the representation (J.-C. Abric, 1994). Because they are arranged hierarchically, those peripheral elements existing closer to the core are more likely to contribute to the concretization of the meaning of the representation, while those further from the core illustrate or explain the meaning (J.-C. Abric, 1994).

The transformation of a representation is a process that has been theorized to occur in three ways: rapidly (brutal transformation), slowly over time (progressive transformation), and by incorporating contradictory information into the periphery, preserving the core (resisted transformation)(J. -C. Abric, 1994; Flament, 1989, 1994c; Molinari & Emiliani, 1996). While brutal transformations are rare, they are easier to identify because they are often associated with ruptures in society, like revolutions, for example, in which rapid changes to social practices and ways of life may be undertaken. These types of transformations indicate that the changes occurring in social practices in a particular context of change have, for whatever reason, made it impossible to return to previous social practices, or rendering them irreversible and permanent, to use Flament's language (Flament, 1987). The inability to return to previous social practices means that new social practices have become the norm and the field of the representation must be changed to reflect this (Flament, 1989).

Progressive transformations are more common than brutal transformations, but can be more difficult to identify given that they occur slowly, over time (Moliner, 2001a). These progressive changes take place over many years as society changes; new practices are incorporated into the peripheral system of a social representation and the meaning of this representation slowly

changes as elements that were once peripheral become core. Studying progressive transformations are more difficult because of the increased cost of such research and the impossibility of anticipating the transformation process (Moliner, 2001b, 2001d). This may explain why many researchers choose to explore emerging phenomena, like Moscovici's study of psychoanalyse (Moscovici, 1976) or studies of representations of newly emerging infectious diseases (Washer, 2004, 2005; Washer & Joffe, 2006).

The third type of transformation, resisted transformation, is reflective of the early stages of both prior types of transformation. When a social representation is confronted with changes in social practices or conflicting practices that present contradictions to the core, these elements are integrated into the peripheral system, allowing the contradiction to exist while leaving the core system as it was before (J. C. Abric, 1994b; Flament, 2001). These conflicting practices may, over time, transition into a progressive transformation or may undergo a brutal transformation.

While many researchers are interested in emergent representations, our interests lie in the less studied representations of older, well-established social objects. Social representations are entities with histories (Moliner, 2001d). Tracing these histories provides us with a means through which to access the changing prevalence and importance of certain social objects to particular groups and society at large. That a representation exists for any social object is indicative of the importance of the object to a group (Moliner, 2001d). It also provides us with important information about the group itself, as long-standing groups, like physicians or priests, for example, have long-standing representations (Moliner, 2001d) and the exploration of their social

representation can yield information about various stages of their existence as a group, its identity, and its social objects.

A Consideration of Turning Points

Long-standing social representations can illustrate the ebb and flow of social knowledge about an object. Representations are characterized by present knowledge and the historically consolidated meanings from earlier times (Bôas, 2010). They are thus linked temporally with both a short and long duration, containing knowledge from the present, in addition to knowledge drawn from historically consolidated meanings. This historicity is “permeated by a certain plasticity as each generation changes (or does not change) the sense and understanding of pre-existing knowledge and of historically consolidated meanings” (Bôas, 2010, p. 2). Social representations are thus established in tandem with “constituted and constituent thinking”, being both derived from historical content and new contexts (Bôas, 2010, p. 3).

Studying social representations as they have existed over a long period of time and identifying both their structure and content can facilitate not only the identification of the type of transformation(s) that has taken place, but also gives researchers a means to access those short and long duration elements that are specific to a historic, social, and cultural time and place. The temporality of representations and their historicity makes the study of representations over long periods of time, in part, a study of turning points in the lives of social groups. Turning points indicate a change in the structure of a trajectory. They are “short, consequential shifts that redirect a process” (Abbott, 2001a, p. 258). A turning point would indicate social change: a moment in time when social practices, following the process of a brutal transformation, for

example, would undergo such a drastic shift that these changes in practice would become habitual and permanent. Identifying these turning points in the trajectory of a social representation would facilitate the likely identification of a change in the core system.

We can also, argue, however, that there is another use for turning points in a study of social representations. Rather than solely identifying 'brutal' transformations, as would be indicated in a turning point and the shift in trajectory, we might argue that turning points can also be identified in terms of progressive transformation, marking changes among peripheral elements that are themselves indicative of a change in social practices. While not as harsh as a complete change of direction, such turning points could be representative of the short shifts that Abbott argues redirect a process (Abbott, 2001a). Historical explorations of a social representation could identify key turning points that might indicate a change in the core, and thus meaning, of a representation, while also giving researchers ideas regarding where else they might begin to look for progressive changes. Abbott's concept of turning points makes it possible to explore the trajectory of a particular social object and to determine, in hindsight, events or moments in time that were turning points in the lives of individuals or groups that may likely reflect a change in social representation. Using the concept when thinking of long-standing representations, undergoing slow, progressive change addresses Abbott's own criticism of the concept, which he argues is a narrative one, limited by the need of turning points to create a new trajectory, requiring the identification of at least two temporally separate observations (Abbott, 2001a).

Identifying these turning points is still a matter of methodological concern. Abbott himself argues that this can be empirically problematic, a challenge of the identification of a "moving window

that can assess both the degree of "trajectoriness" in a currently ongoing trajectory and the "direction" of whatever trajectory does exist" (Abbott, 2001a, p. 250). Identifying turning points follows our objective of studying the transformation of a representation over time, but creates another problem linked with the temporally specific nature of social representations. To identify the turning points in the transformation of representations, we must be able to work with points in the past that allow access to social representations as they exist in particular moments in time. What is needed is a methodology capable of systematically identifying social representations *in* the past, capturing, as much as possible, the influence of knowledge of both short and long duration as present at a moment in time. Our research project, seeking to identify the representation of physicians and its transformation over time, required accessing such data.

Examining Representations in the Past

While exploring transformations is still an understudied area in social representations research, an increasingly historical turn to the study of social representations is underway, with many discussions focused on the relationship between social psychology and history (Markovà, 2003; Markovà, 2012; Millstone, 2012), and, related to this, a continuation of earlier explorations of how one might go about undertaking the study of representations over time (Brondi et al, 2012; Guimelli, 1994a; Sammut et al, 2012). Researchers engaging in the study of transformation have been employing various techniques. Some, like Guimelli (1994a) and Moliner (1998) have studied the transformation of representations as they are in the progress of changing. When an outbreak of myxomatosis decimated rabbit populations in Languedoc, France, hunters suddenly found themselves faced with the decision to cease hunting, or to raise rabbits and release them into

the wild. These hunters had to change their representations of hunting to address this change in practice (Moliner, 1998). Guimelli (1994a) similarly attempts to access the process of transformation by studying nurses at different stages of their careers. He argues that newer nurses have a different representation of their function as nurses than do those who have more experience and over time, as nurses gain more experience, their representations of their function changes.

Others have examined the transformation of representations through longitudinal study. Brondi *et al.* (2012) for example, explored the stability and variability of the social representation of an Italian river over a period of 30 years, selecting three key moments in time to conduct their analyses: when regulations on pollution were first introduced, shortly following the implementation of these regulations, and 30 years later, when new European regulations were adopted (Brondi *et al.*, 2012). Using a somewhat similar approach, Sammut *et al.* (2012) proposed a time-series evolutionary model based on adaptation. Their interest in accessing the representations constituting the social memory of a community involved the creation of an epidemiological time-series at four different times, beginning in medieval times and ending in contemporary times. Chombart de Lauwe used children's literature (1850 to 1960), films, and various advertisements in a longitudinal study to understand the changes in the representation of childhood in France (Chombart de Lauwe, 1971, 1984). Bertrand's work on the historicity of vagrancy and begging also studies representations in the past through the analysis of legal discourse in documents produced in the 19th and 20th centuries (Bertrand, 2002, 2003). Both researchers demonstrate that representations can be found through means other than through interactions with individuals.

Others are studying representations *of* the past. Uzzell and Blud explore children's understandings of Vikings before and after they visit a museum exhibit set up to present a non-stereotypical presentation of Vikings (Uzzell & Blud, 1993). Flament (1996) sought to better understand the effect of social change on different generations, exploring the social representations of work and unemployment among individuals aged 50-60 and those aged 25-30. Jodelets' work on mental illness in a small French community delves into the historicity of the representation of madness in the verification of behaviours that suggest what villagers thought of aspects of their daily lives, and how this complemented and contrasted with their stated beliefs about mental illness (Jodelet, 1991).

In 2001, Moliner proposed three strategies for studying the transformation of social representations. These included accessing both older and younger generations to determine their representation of a social phenomenon (Flament 1996), studying the adaptive efforts of groups whose representation is currently undergoing change (Guimelli 1989), and the study of representations of individuals as they progress through different life stages, for example stages of a professional career from novice to more experienced practitioner (Moliner 1998). To this we might add an additional strategy, which was overlooked in his compilation, but which has seen much use of late: longitudinal studies accessing social representations in the past (Brondi et al, 2012; Chombart de Lauwe, 1971; Sammut et al, 2012). The strength of this latter strategy is that it offers not only opportunities to study representations at different stages of change (more immediate to longer duration), but it also removes the reliance on memory and the influence of current representations, an admitted limitation of Flament's generational demographic. Using a

combination of data collection methods to access representations that exist both currently and in the past, it offers a viable alternative to Moliner's first strategy.

While acknowledging the potential to generate interesting findings about the transformation of social representations, we contend that continued exploration of methods with which to access older, potentially stabilized representations is a worthwhile endeavour.

Using Mass Media to Study Representations in the Past

Having reviewed Moliner's suggested strategies to study the transformation of representations, we can see how additional methods exploring a means of accessing representations in the past are important to the study of representations. Current strategies are often limited by the ability to identify turning points in societies, leaving us often unaware that changes in representations are occurring. Studying representations *in* the past is, arguably, much more difficult to do and comes with its own unique limitations, but it offers an opportunity to better understand those social representations already in existence, many of which (like money, marriage, family, physicians) are largely important social objects in many societies. Those studying such representations have used many different types of data to do so (archive documents, books, magazines, historical documents, etc.)

To address the challenge of accessing representations in the past, we take our lead from those like Chombart de Lauwe, Bertrand, and Sammut *et al.* who use documents and cultural products and we suggest the use of televised media. This approach to data collection emphasizes representations as "cultural products, reified in social artefacts" (Breakwell & Canter, 1993, p. 5). Written texts and visual works are products of material culture that

incorporate thought structures and historical traces of social patterns that are shaped by the cultures that produce them (Sklar, 1990). This re-historicization of moving images recognizes that the mass appeal of television shows could not be achieved if they did not express or reflect values and attitudes shared by mass audiences (Sklar, 1990).

The study of media is relevant to work on social representations because it is one of many communicative mechanisms through which ideas can be communicated and transformed into common sense; naturalizing social thinking and generating general cognition (Hoijer 2011). Having established a system of meaning and symbolism, mass media is “more dynamic and less resistant to change than a society’s cultural underpinnings” comprising “representations of objects, events, and facts resulting from rapid scientific and technological advances, as well as from economic, political, and societal changes that are typical of contemporary society (Wagner, 2012).

It would be an oversimplification to associate the social representations presented on television as the single circulating social representation of an object given the multiplicity of representations. Televised media offers access to the representations that reflect the representation of the dominant groups in society and inherently reflect the biases of those involved in the creation of the show. Televised media is thus limited in the perspectives that it offers and we make no claim to interpret them as an absolute or wholly reflective of the period in which they were created. We do, however, see them as a viable secondary source through which to examine the structure and longevity of a social representation. As with other studies using materials such as books, magazines, film, television, and radio broadcast (Chombart de

Lauwe, 1971, 1984 ; Moscovici, 1976), we benefit from the non-reactive nature of the data, which helps to ensure that the social representations that emerge from our analyses do not change simply by virtue of being investigated (Farr, 1993). While the content of mass media is not necessarily equivalent to that of individual thought, their role in the formation and transformation of social representations is not negligible (Joffe & Haarhoff, 2002), making them an important addition to the study of social representations.

We concern ourselves mainly with the 'manifest' level of our media data. Manifest here is understood to mean the level of the data that pertains to meanings that are socially shared and thus open to reliable inspection (Berelson, 1952; Berg, 2008). This perspective acknowledges the interpretive work that is done by a researcher, but that latent meanings need not be the focus of interpretation (Rose, 1995). The present research does not seek the deeper meaning of the text, nor a latent meaning beneath the text. Working with televised media we find the meaning of what is aired will pertain to what is made visible: what is shown and how it is organized. In saying this, we are also acknowledging that our interpretation of the televised media is always structured and influenced by concepts and theories conditioning our analysis. Our analysis then is one focused mainly on the surface of media, in what is made visible through televised media and we do not concern ourselves with what the show's creator or writer(s) intended meaning might be. Our project aimed to examine the social representation of physicians as derived from televised media and to explore this representation across 60 years of television, beginning with the first televised medical dramas in the 1950s.

The Toblerone Model of Studying Representations over Time

Having determined that the use of media is a viable option for accessing representations in the past, the challenge that remains to be overcome is that of studying the transformation of representations over time. As we have noted, change is part of the essence of a representation (Rouquette, 1994), as they are perpetually re-negotiated and transformed (Moliner, 2001d). Capturing the transformation(s) of a dynamic entity presents methodological challenges of their own.

Most recently, those working on the study of representations over time have chosen particular moments in time as their choice points of exploration: Brondi *et al.* (2012) chose three specific moments in time based on the creation and implementation of pollution regulations. Interested in capturing data referring to images of the Chiampo River, the emotional experiences linked with it, and the practices of water use, they accessed archive documents, interviews, surveys, and self-reports from the mid-1970s to 2009. Based on important moments in the development and implementation of pollution regulations, Brondi *et al.* selected three time frames of particular interest to their study of representations: when the regulations on pollution were first introduced (1974-1978), when they were first implemented (1978-1980), and at the introduction of new European regulations (2007-2009).

Sammut *et al.* (2012) used a somewhat similar, but broader approach to their study of Maltese immigrant perspectives towards their countries of origin and settlement. Their historically placed analysis informs why Maltese settled in Britain differ from those in other communities in countries around the world. Here their time-series evolutionary model is based on adaptation,

resting on a conceptualization of social representations as a type of social memory of a community, changing to reflect a community's changing needs, providing a particular identity value (Sammut et al, 2012). Their model presents four specific time frames that account for context-specific social relations among the Maltese in London: A medieval historical epoch (in Malta), after-war years (both in Malta and London), and contemporary times (in London).

Both perspectives are reflective of Bauer and Gaskells' (1999) Toblerone Model and indeed, both refer to it directly as influential to their work. Bauer and Gaskell introduce the element of time into the representational triad, which traditionally consisted of two people and an object. This representational triad is considered the minimal system involved in representation (Bauer & Gaskell, 1999). This model conceptualizes social representations as a community project that extends over time (Bauer & Gaskell, 1999). This 'project' dimension indicates mutual interests, goals, and activities of a particular group. Its extension over time suggests a future component, in which the group projects these interest, goals, and activities into its anticipated future (Brondi et al, 2012).

The elongated pyramidal shape infers that the relationship between the subjects and object occurs in time, and also over time. A section "through the toblerone at any particular time is a surface that denotes the common sense meaning [the representation] of that object at that time" (Bauer & Gaskell, 1999).

The model's usefulness is derived not only from this reconceptualization of representations as a dynamic, community project that extends over time, but also the embeddedness of its treatment of temporality, acknowledging that the content and meaning of a representation varies over time

(Sammut et al, 2012; N. Ward & M. Lévesque, 2014). Cutting several slices of the toblerone allows for the study of representational change (Bauer & Gaskell, 1999), recognizing that the content and meaning of a representation can vary at different moments in time. While Bauer and Gaskell emphasize that there is never just one such toblerone, that there exists what can be better conceptualized as ‘packs of toblerones’, for the purposes of our discussion here, the simpler model will suffice. See Foster (2011) for further discussion of both the toblerone model and Bauer and Gaskell’s methodological considerations.

Choosing Toblerone Slides to Explore Potential Turning Points

Exploring the transformation of a representation involves the incorporation of temporality and the comparison of the representation across different points in time. The identification of turning points in the transformation of representations requires access to representations as they exist in particular moments in time, a slice of the Toblerone. These turning points, though sometimes subtle, as in progressive transformations, mark a change in the trajectory of the representation. Acknowledging the uniqueness of representations as a dynamic entity, but at the same time recognizing the need to explore its transformations and turning points in a feasible fashion, for the purposes of our particular study goals, we bound the temporality of representations into measurable units, which provided a trajectory of the social representation. We were guided, in part, by our medium of study, televised media, which is itself bound by time, limited by its inception in the 1950s. This fact, in and of itself, was a limitation to our study, bounding our observation period. For those studies for which this is not a limitation, the choice of units of time or selection of slices is a result of study objectives and decisions that must be made by the researcher. We can see this perhaps most clearly in the work of Brondi *et al.*, a relevant

comparison because it is reasonably similar to our own (N. Ward & M. Lévesque, 2014). Brondi and colleagues sought to explore the effect of environmental regulations on the social representation of the Chiampo River, in Italy. Their choice of the Chiampo River offered clear timeline regarding the design and creation of environmental regulations aimed at reducing industrial pollution leaching (or being dumped into) the river, the implementation of these regulations, and at a later point in time, the introduction of additional, European regulations were adopted. Their choice of toblorone slices, here four and two year time periods, allows them to study the changes that occurred over time.

The selection of how much time can also be guided by internal divisions, identified through the analysis of collected data (revealing transformations) or identifiable through changes in society or social practices, which might suggest a change in the social representation. Sammut and colleagues sought to explore the ways in which time shapes the meaning of values and the relationship of these values to the cultural identities of Maltese immigrants. The project itself is derived from findings from a separate study conducted by Sammut. In his analyses of interviews for a different study (Sammut, 2010, 2012), he noted distinct differences between Maltese immigrants in London who demonstrated an assimilationist perspective and where there is no well-established Maltese community, by contrast to other Maltese communities established in multiple countries around the world. They note that this was not always the case, as such a community had previously existed in Britain, but had been allowed to disintegrate after the war. They use in-depth interviews with Maltese migrants to Britain to understand immigrant perspective of their host country and their country of origin. Here respondents expressed a distinct preference for limited interactions with fellow Maltese immigrants, seeking

instead assimilation. They also draw on a case study of a respondent who informs the interrelations between Maltese immigrants in Britain, expanding on previous information attained by fellow researcher in the 1970s who contextualizes the disintegration of the Maltese community in London during the 1960s (Dench, 1975). Dench's work allows Sammut *et al.* to ground their analysis in a historical perspective, indeed, they look to Dench's work to explain much of the behaviour they hear about from their respondents. Sammut and colleagues argue that their time-series model allows them to map the "adaptation of ideas over time and across different [representational] projects up to the point of providing a justification for contemporary social behaviour..." (Sammut et al, 2012, p. 500). They present their epidemiological time-series model in four time frames, accounting for the evolution of the social representation as a function of the representational project's reflection of the community's needs.

A similar approach could have been taken with our project – particular moments in time could have been chosen around specific events (patient advocacy movements, debates over health insurance, for example) – but our interest was in the ability to use media to assess changes more generally over time with an eye to more specific future research to further explore the boundaries of the methods. The measure of time is thus, in many ways, guided by the nature and goals of the study, the limitations of the medium, and the dataset itself. We can see that our methodology places itself within this same tradition, seeking to study the transformation of representations over time and attempting to access representations in the past. Like Brondi and colleagues, we choose to slice our toblerone into thicker chunks and present the representation(s) of that time aggregated. Similar to Sammut and colleagues, we trial a different

means through which to access representations, in an attempt to piece together information about social objects that no longer exist as they were. Our methodology complements these, offering another means through which researchers might access social representations. The use of media facilitates a systematic analysis of a social representation, as one is able to derive one's data consistently over time. This is not to say that studies do not benefit from accessing multiple sources, which would be a falsehood, merely that in some cases, it may be beneficial to study the project of a representation using one or more sources that are consistent over time. Combined with a structuralist method of identifying core and peripheral elements, it is ideal in its ability to determine the structure and hierarchy of a social representation. These structures, once identified, can then be compared over time to identify movement among the elements, and the addition of new elements or regression or removal of others. We demonstrate this in our next section using a study of the social representations of physicians as our example.

Using Multidimensional Scaling to Determine the Structure

For the purpose of our study, we selected multidimensional scaling (MDS) as our analytic technique. MDS is a model for similarities, dissimilarities, and other proximity data (Carroll & Arabie, 1998) that has been used by others (Moloney, 2007; Moloney et al, 2005; Sammut et al, 2012) for its usefulness in determining the structure and relationship of elements forming the core and periphery of representations. Used in the analysis of social representations (Doise et al, 1993b; Foster, 2001; Stockdale & Purkhardt, 1993), it is a descriptive technique for proximity relations, constructing geometric representations between points in geometric space (Borg & Groenen, 2005). Those objects being more similar to each other are placed near each other in

geometric space, while those that are dissimilar are located at a distance from one another. In this way, MDS can be used to visualize the structure individuals impose on various things like objects or events in their environment (Heiser & Busing, 2004; Krustal & Wish, 1978).

Multidimensional scaling is most often used to create models that relate physical properties to perceptual or cognitive representations (Borg & Groenen, 2005), making it particularly useful in the study of social representations. Purkhardt and Stockdale (1993) contend that MDS is a suitable method of analysis for social representations research because both method and theory possess the underlying principle that knowledge is shared and both function under the presumption that people think about complex stimuli by referring to attributes (Purkhardt & Stockdale, 1993). MDS can provide both the identification of the content of a representation and the ability to explore its structural relationship (Purkhardt & Stockdale, 1993). Accordingly, it facilitates the quantification and interpretation of representations that exist in society without manipulating or affecting respondents (Purkhardt & Stockdale, 1993). Purkhardt and Stockdale argue that MDS allows social representations to "emerge from simple and relatively unconstrained tasks, mirroring the actual complexity of the social environment" (Purkhardt & Stockdale, 1993, p. 277).

MDS facilitates the identification of the key indicators associated with a social object, here physicians. When located in geographical space on a map, the groupings and their subsequent locations have meaning. Those elements that are judged to be similar to one another are placed closer together, while those that are less so are located further apart. This means that in assessing

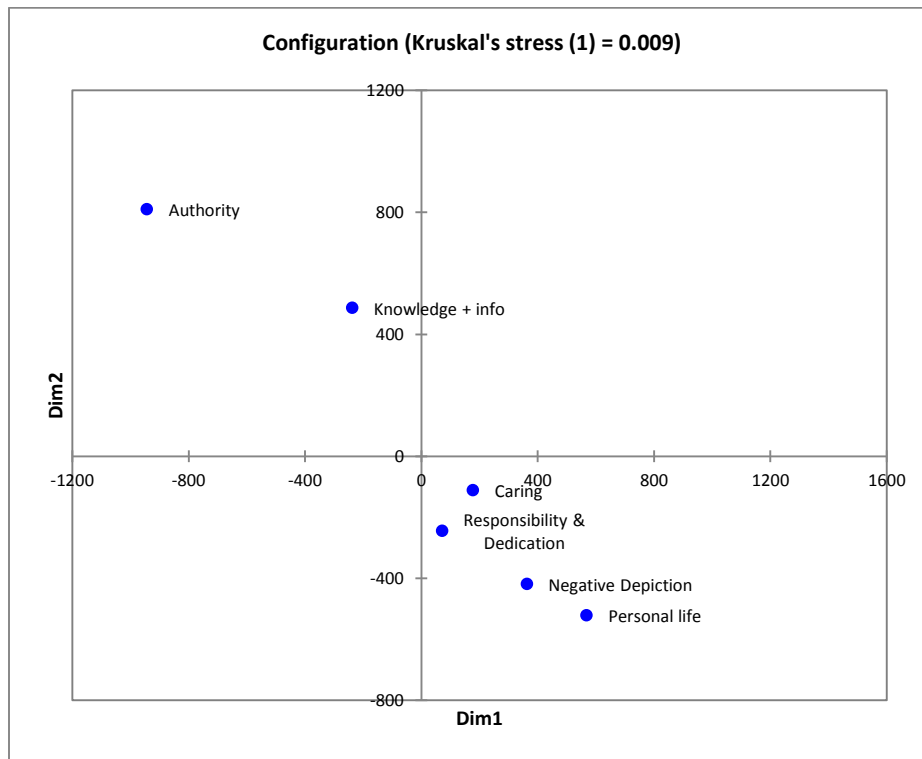
the elements, not only is distance between points relevant, but also where they are located (in which quadrant) and on which dimension.

The spatial analysis provided by the MDS analysis groups the elements and places them in relation to each other in terms of similarity, but it alone cannot identify which of the elements represents the core system and which represents the periphery. For those using quantitative data, the identification of the core and peripheral elements can often be simplified through the use of a regression analysis (Purkhardt & Stockdale, 1993). Where qualitative data were used, a combination of knowledge of the data and relevant literature can serve as a basis up on which to determine core and peripheral systems. Elements presenting themselves in the data at a higher frequency are often elements of the core system. When these elements are combined within the context of the surrounding literature of the subject, a more robust image of which items are core to the representation can be confirmed.

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When thinking about identifying a social representation with MDS, this means that elements making up the core and the periphery are likely to be located on different dimensions. This dimensional analysis facilitates the defining of the structure, with core elements being separate from peripheral ones. Thus, if we examine Figure 1, derived from our work on the social representations of physicians (N. Ward & M. Lévesque, 2014), which presents an aggregation of data from 1954 to 2010, we can see that our data points are located in two of the four available quadrants and are placed within two separate dimensions.

Figure 11: Multidimensional Scaling Analysis: Aggregated Physician Data (1954-2010)



In reviewing the separate elements, we considered the separation to have occurred between the two quadrants, placing <authority figure> and <application of knowledge and acquisition of information> together as one group and the other elements together as a second grouping. To confirm which group is the core system and which is the peripheral system, we can contextualize our data in the literature on physicians as a profession. Physicians' ability to regulate themselves as a profession has meant the subordination of other competitive health-related occupations (Coburn, 1998; Torrance, 1998) and the organization of other health care roles around that of physicians. Their control over their work is one of the means through which physicians have historically maintained their prominence (Freidson, 1971; Larson, 1977). As the dominant profession, the physician is the decision-making authority through which decisions about hospital

admission and discharges, leave from work, and government or insurance payouts are legitimated (Freidson, 1986).

Physician authority is also established and maintained through the possession of expert knowledge, techniques, and practices that only they have the right to dispense (Bell, 1999; Illich, 1977). The application of this technical knowledge through diagnosis, manual examination, and the use of interpersonal relations are all intimately connected with medical knowledge and technical skill (Rueschemeyer, 1972). These two factors, derived as they are from literature on the sociology of the professions, confirms the likelihood of <authority figure> and <application of knowledge and acquisition of information> being core elements.

With regards to the peripheral elements, in the case of health care professionals, their identity is heavily bound intertwined with caring - who they care for, how they care - and with the skills and knowledge they possess on curing. This peripheral element is centred on those practices that are centred around compassion, rather than treatment, as physicians reassure others, appear empathetic, and supportive of others. Compassion, like dedication, are both considered principles of medical ethics as stated by the American Medical Association and key components of the ABIM Foundation's medical charter (ABIM Foundation, 2002; Association, 2013).

Dedication, through long-hours, low pay, long education process, etc. is considered a public symbol of a profession that requires hard work and dedication (Philibert et al, 2002) .

Peripheral elements are those that contribute to the meaning of the representation, but are more flexible and varied than the core elements (J.-C. Abric, 1994). The peripheral system is responsible for integrating information or practices that might be in contradiction with those of

the core system (J.-C. Abric, 1994; Flament, 2001). This integrative ability is what would facilitate the existence of something contradictory, like the element ‘negative depiction’, for example, which may contrast with those elements “authority figure” and “application of knowledge and information”. The peripheral system allows the representation of the physician to include elements that apply to some, but not all physicians. In this way, physicians can be both confident and in control authority figures while some can also be unsure of their decision-making process, while still being perceived of as an authority figure.

While perhaps not an element of all social representations of physicians, the representation as derived from medical dramas does include a peripheral element that is focused on the personal life of the physician. That physicians might discuss family issues or meet with a family member while at work is not irrelevant to their overall role as a medical practitioner.

Inherently, studies that collect data through multiple means offers the opportunity to triangulate findings across different datasets (Moloney et al, 2005, for example), for example).

If we take frequency into consideration in the consideration of our MDS findings, in the context of the literature described above, we can see that such an assessment indicates that data coded into knowledge and information and authority were higher in number than those coded into other categories (see Table 1). This is true for all television series included in the sample.

Table 8: Frequency of element mention in the data by series

	Knowledge & info	Authority	Caring	Responsibility & Dedication	Negative Depiction	Personal life
<i>Medic</i>	162	117	51	66	3	3
<i>Ben Casey</i>	331	452	141	261	110	15
<i>Dr. Kildare</i>	253	370	127	143	48	6
<i>Dr. Welby, M.D.</i>	396	585	228	179	57	9
<i>Emergency!</i>	260	427	63	67	28	2
<i>St Elsewhere</i>	501	953	304	357	124	39
<i>Chicago Hope</i>	609	1054	305	332	143	25
<i>ER</i>	1399	1851	542	523	242	64
<i>Grey's Anatomy</i>	922	1391	444	379	190	46
<i>Trauma</i>	379	753	204	148	119	5

The core thus consists of the “application of knowledge and acquisition of information” and the portrayal of the physician as an “authority figure”. Peripheral elements, “caring”, “responsible and dedicated”, “negative portrayal”, and “personal life” round out the representation.

Completing such an analysis for each decade allows us not only to identify how these indicators relate to each other proximally in each decade, but more importantly, they allow us to document changes in both systems that may be occurring over time.

This type of analysis is detailed enough to identify the core and peripheral elements, allowing researchers to evaluate the structure of a representation at multiple points in time and it is flexible enough to facilitate this identification a specific moments in time (where data is available)

and also trends over long periods of time. Such an analysis, completed over a specific time frame, allows us to identify how these indicators relate to each other proximally over time, informing the study of the transformation of representations. Further demonstration of this can be found in our work on the social representation of physicians (N. Ward & M. Lévesque, 2014).

Concluding Comments

As noted earlier in the introduction, Moscovici (1982) encourages the use and exploration of multiple methodologies in the study of social representations and this challenge has clearly been taken up by a great number of social scientists. While still quite small when compared with the larger literature on social representations, the study of representations in the past and the transformation of representations over time is both feasible and important to our understanding of the relationship between social representations, society, and social practices.

Our methodology embeds the social representation in particular historical moments to assess the structural stability of the representational field and provides a means through which concerns with the historic aspects of a social representation can be examined. It provides an alternative to other methods, like the technique of free association, criticized by Bôas (2010) as relying too heavily on participants' direct experience of the topic in question in relation to information available at that moment in time. That social representations contain both common knowledge as derived from everyday experiences as well as historically consolidated meanings (Bôas, 2010) indicates a level of plasticity that cannot be finely captured through participant-derived means, unless collected annually over time. Our methodology provides an opportunity to begin accessing some of that finer detail in situations where the goal is to look into the past, rather than the

present, allowing us to demonstrate a relationship between permanence and change illustrating the stable and yet dynamic dimensions of social knowledge. Accessing social representations in the past, as we have done through non-reactive material provides us with a sample that captures the dynamic nature of the social representations, but is not limited by memory or influenced by more modern representations. This means that data collected and aggregated over each decade is approximately representative of that decade and more representative of the representation of that decade than could be obtained from a research participant.

We have provided a means through which to address the dynamic nature of social representations by aggregating data over a bound, measurable unit of time in order to facilitate the identification of an overall representation of the social object as its social representation transforms over time. Combined with a structuralist perspective of social representations, this facilitates the identification of the structural elements of representations and their hierarchy, enabling researchers to follow the elements composing the structure of the representation as they change over time.

The analysis by MDS facilitates not only the identification of the elements of the core and peripheral system, but also the ability to track these changes over time. An MDS analysis for each decade provides a detailed graph of each of the elements forming the structure of a representation and places it in a hierarchy. The proximity with which peripheral elements are located to the core elements tells us something about their relationship, about their degree of importance within the hierarchy, and their effect on the meaning of the representation. While the elements forming our representational structure remained the same over our studied time

period, in other cases, such an analysis would facilitate the easy identification of new or removed representational elements and would relay important information about the representation through the structure placed in geometric space.

The results of the application of this technique have been presented in detail (N. Ward & M. Lévesque, 2014) and as the excerpt above demonstrates, the methodology presented in this article did allow us to successfully identify and explore the social representation of physicians over time, illustrating ruptures and stabilization in the representational structure. The flexible nature of the methodology facilitates access to social representations in the past, indicating that undertaking the longitudinal study of a social representation must not always be limited by funding and timing, as argued by Moliner (2001b, 2001d). While we chose to explore a single representation as the case study to assess our methodology, those data collected for the study offer much in the way of exploring social occurrences. Our dataset alone would allow for an exploration of diagnostic techniques, technological advances, gender of physicians, patterns of dress, and, as we have further explored elsewhere, how elements that form the structure of the social representation of physicians, like their authority, their care work of diagnosis and treatment, all contribute to the symbolic capital of the physicians themselves (Ward, 2014).

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Article Three: The Role of Space in the Reproduction of the Roles of Medical Professionals: Some Initial Considerations

Introduction

The purpose of this article is to examine the spatiality of professional practices and interactions of health care practitioners working in hospitals as portrayed in televised medical dramas. As with all specialized services, health care services are administered in specific built environments, designed to meet the particular needs of those seeking and providing health care services. These buildings, from their physical geographic location to the internal organization of offices, exam rooms, and surgical suites, convey meanings and messages about who and what the space is intended for (Baldry, 1997; Moore, 1986; Prior, 1988). But space, as many have argued (Giddens, 1984; Goffman, 1959, 1961; Lefebvre, 1991), is more than just a context for action, being itself active and capable of influence (Latour, 2005; Murdoch, 1998). In this way, space is drawn on by social actors as a resource (Giddens, 1984) and as a resource, should have visible connections with professional practices and symbolic capital.

As spatial cues encode social information (Rapoport, 1982), studies of physical space can provide data on social organization, power, and identities. Such studies can reveal much about the role that space plays in the negotiations for, and maintenance of, capital in the field of health care, informing the ways in which professions maintain their position within the field through the routinization of practices and ongoing negotiations in space. Architecture has been argued to play a role in maintaining territorial boundaries and symbolic differentiation (Pellow, 2003), emphasizing the role that architecture has in codifying and reproducing the visibility or invisibility of work, and the reproduction of professional identities (Jones, 2011).

The study of space is an often overlooked element in the study of professional interactions and practices. There have been, to our knowledge, few that have focused on space as an active agent, with most interested in space as a context within which interactions take place, rather than as an active agent, and none that have undertaken an exploration of the role of space in the constitution of professional practices, habitus, and capital. Such a perspective will allow us to explore the ongoing presence of physician dominance in the field of health care. Our analysis is based on findings from an observational study of televised medical dramas dating from 1954 to 2010 that formed the basis of a separate study (N. Ward & M. Lévesque, 2014). Our interests lie at the intersection of Bourdieu's habitus, practices, and capital and a sociological examination of space.

Theoretical Framework

Negotiations over capital take place during social interactions, but they also occur in space.

Within sociology, space has often been treated as an environment within which social conduct

is enacted (Giddens, 1984), rather than a socially produced resource that can be acted upon, but which also facilitate particular actions (Goffman, 1959, 1961; Lefebvre, 1991; Murdoch, 1998). Following the perspective of Actor Network Theory (ANT), spaces are arranged in such a way to facilitate certain types of actions (Murdoch, 1998), but this should not be taken to mean that spaces determine actions. Instead, many spaces are designed to facilitate a particular script; that rooms are often constructed with the requirements needed for actions that allow actors to feel that they are 'in place' when they are there (Latour, 2005). Latour gives the example of a lecture room, designed to keep noise out, with appropriate seating, with a podium for the speaker, that allow those in the room to feel as though all material elements they need are already in place. In this way, buildings can be seen as moving modulators "regulating different intensities of engagement, redirecting users' attention, mixing and putting people together, concentrating flows of actors and distributing them so as to compose a productive force in time-space" (Latour & Yaneva, 2008, p. 87).

It is this active agency that we wish to draw on to reinforce a conceptualization of space as not only a context for interactions, but as something that actors are able mobilize in interactions, whether consciously or not, facilitating some actions, while restricting others. According to Bourdieu, physical space functions as an organizational template that structures the social world (Bourdieu, 1977a). Bourdieu's analysis of the physical layout of the Kabyle house and its uses demonstrates how space functions as an instrument of social reproduction through the ways in which it divides and arranges things, people, and practices into hierarchies, reinforcing principles of classification (Bourdieu, 1992).

That physical spaces are structured in a way similar to that of social space means that spaces are never considered to be neutral.

There is no space, in a hierarchical society, which is not hierarchized and which does not express social hierarchies and distances in a more or less distorted or euphemized fashion, especially through the effect of *naturalization* attendant on the durable inscription of social realities onto and in the physical world..." (Bourdieu, 1996, p. 13). [...] Thus historical differences can seem to have arisen from the nature of things (Bourdieu, 2000b, p. 124).

In ANT, social order, power, scale and hierarchy are consolidated and preserved by material objects in space. These material objects (stairs, machines, etc.), are used to order the space, but they also give rise to a certain kind of agency mediated by the space itself. These objects solidify social relationships and allow them to be regulated through space and time (Murdoch, 1998). But it is not only through material objects in space that the social is preserved, but also in and through the body. The body incorporates socio-spatial relations into habitus, reaffirmed in practice, thus reproducing the social order. This incorporation "takes place through the displacements and bodily movements organized by these social structures turned into spatial structures and thereby naturalized" (Bourdieu, 2000b, p. 126). Habitus, the dispositions acquired by individuals according to their position in social space, is a repository of the individual's engagement with the world. Although certainly not the only determinate of habitus, physical space is one of the most important since habituation to occupying and moving within physical space involves the body directly in the acquisition and mastery of spatialized social structures. "Architectural spaces," says Bourdieu, "address mute injunctions directly to the body..." (Bourdieu, 2000b, p. 126). In this way, space is practiced. Habitus upholds the status

quo. Habitus, then is acquired by exposure to social space, and space emerges from the co-expression of the habitus. Practices too are the expression of habitus, and thus, if the argument is to follow prior logic, also an expression of space. Practices are not only routinized bodily activities, but, in particular contexts, routinized stabilizers that preserve social order. In this way, if we consider practices to be the site of the social, then routinized bodily performances are the site of the social and – so to speak – of ‘social order’” (Reckwitz, 2002, p. 251).

Physical space is thus “reified social space”(Bourdieu, 2000b), rife with practices that reinforce positions, drawn upon as a resource, and the active context in which professions and professionals engage in negotiations and clashes over capital. Examining the practices of professionals, in terms of their functioning in symbolic terms (Bourdieu 1972; 1980), facilitates a different type of understanding of professions and the symbolic capital that undergirds every interaction they have with those around them, professionals and non-professionals alike. In Bourdieu’s “field of power” it is through practices and relations that we can begin to understand the negotiations and enactment of Bourdieu’s cultural and symbolic capital and through this, begin a more comprehensive understanding of not only the symbolism enacted in interactions in space, but also a better understanding of the abstract concepts employed by Bourdieu in his discussion of habitus, practices, and capital. It is this perspective that we wish to draw on to explore the interactions between physicians and those around them.

For all the importance of the relationality of space, there is little focus on this in the study of interactions between health care professionals in the available literature. While researchers

have used space as a unit of analysis to examine the relationships of health and health-related practices (Cummins, Curtis, Diez-Roux, & Macintyre, 2007; Rainhan, McDowell, Krewski, & Sawada, 2010), there is little research on how the health care system and professional roles are (re)produced in place/space by workers and their practices (Andrews & Evans, 2008). To begin to further explore the (re)production of professional roles and their relation to space and capital, we draw on data collected for a larger study of the social representations of physicians (N. Ward & M. Lévesque, 2014; N. Ward & M. Lévesque, 2014).

Methods

The data considered here come from ten popular medical dramas, nine written and produced in English and one in French. Television series were selected with an eye to regional representation, popularity, and longevity, although these criteria were constrained by the availability of the series. The most popular and longest running medical dramas portraying a physician in their place of work (those focusing on private lives were excluded) were selected to provide representation across the decades. Medical dramas were selected in particular because they provided the longest running type of show featuring physicians, allowing access to earlier representations and a wider sample. For all but two decades (1950s and 1980s) we were able to access at least two medical dramas meeting our inclusion criteria. For a more detailed discussion of how television dramas were selected, see (N. Ward & M. Lévesque, 2014).

Observation of selected television media included five episodes from earliest obtained material and five more from the latest years obtained for each series. Where series progressed nine or more seasons, as with ER, for example, we observed five additional episodes from the fifth

season. Observations were conducted by the primary author and field notes were typed into Microsoft Word. We sought to capture the events as portrayed (patient-physician visits, practitioner-practitioner discussions) and behaviours (mannerisms, actions) and general demographics. In total, 100 episodes of televised medical dramas were observed and documented providing a total of 92.5 viewing hours and over 900 pages of field notes for analysis.

Field notes were uploaded into ATLAS.ti and manually coded into broad categories (depiction of physicians, depiction of nurses) for organizational purposes. Data coded as 'depiction of physicians' were compiled and saved as a separate file. These data were then coded thematically, capturing activities, affect, thoughts, and emotions using both inductive and deductive techniques (Fereday & Muir-Chochrane, 2005). These data were read and reread by the primary author and the technique of constant comparison (Boeije, 2002) was employed to iteratively compare and sort the themes into broader, interrelated, conceptual categories. This analysis facilitated the identification of data regarding what physicians do, for example, and combine it with information about where they were, what work and spaces were made visible during the episode's narrative arc, and physician interactions with other health care professionals, patients, and families.

Findings

Televised medical dramas are primarily focused on the experience of physicians and their role as health care providers. We begin by considering how physical space provides a script for interactions and practices in hospitals and following this, we examine how space contextualizes

interactions through their arrangement and the use of space for medical work in the form of diagnosis and treatment. We consider the question of how space communicates a particular representation of work that is structured in terms of hierarchies and discuss this in light of what these portrayed spaces make visible in terms of work practices.

Spatial Contextualization of Work

Space provides a context for interactions and following ANT, these spaces are arranged to facilitate certain types of actions (Murdock 1998). In hospitals, the building is one designed to house and treat those who are unwell, in need of diagnosis or treatment, or in cases external to our researcher, a place of respite until death. In this way, the building, and all that it contains, is designed to facilitate a particular script of diagnosis and treatment: Individuals enter through particular areas, engage in certain actions with medical practitioners like triage nurses, and then become patients. In other cases, individuals are brought in through certain areas in emergency situations, already designated as patients.

Work spaces in hospitals are bounded both physically in terms of structural elements, but also by gatekeepers. Administrative staff, though not always shown on screen in television series, are often the mediators between the non-medical and medical spaces. They transfer telephone messages, triage patients, etc. facilitating the movement of information and people into and out of work space. This notion of mediating space, even when the space is open and unbounded, rather than behind glass and/or doors, is interesting and suggests an awareness of constructed narratives around patient and practitioner roles. Patients entering a hospital know that they are transitioning into a work-space and thus follow certain norms, like registering at

triage, going only to certain areas as they are 'sent' by medical practitioners, not seeking out practitioners but waiting in their allotted space, etc. Patients recognize that even though the space is architecturally open, it is not 'open' for them, as non-workers. Spaces through which medical practitioners flow seamlessly – in and out of rooms, down hallways, behind closed doors – are permeable only to them. Patients, instead, must wait, as directed, in hallways, in waiting areas, inside examination rooms and take numbers, present forms, etc. as they are instructed. The principles of classification are clearly in place, dividing potential patients, patients, and health care practitioners. The actions of patients are guided by material objects like doors, glass walls, seating areas, which are used to order the space, giving rise to certain scripts of possible behaviours. In order to move into the status of 'patient', a particular script must be followed. Those who do not follow the traditional scripts, who are violent and must be restrained, for example, still enter the space as a patient, but they are ascribed with the status of problem patient, restrained either medically or physically, and often moved through spaces like emergency rooms into psychology wards where their characteristics and behaviours more closely resemble an expected role for patients.

This waiting and movement through space can be arguably described as the initiation, or rite of passage, into the role of the patient, through the navigation of the architectural space of the hospital. Those who are waiting in waiting areas, having been seen at triage, but not yet admitted into any further areas are still patients-in-waiting. Their status in the hierarchy is as yet undetermined, their problems unaddressed, and their illness unconfirmed. Moving past this area and into spaces in which diagnoses, test, and treatments become possible provides a change in status for those individuals. They are now patients in a way more symbolic than

simply having the triage nurse taking their information and beginning a chart for them cannot provide. Becoming a patient is thus much more than having a chart created, but involves moving through various barriers into a different organization of space. Here patients are seen by their health care practitioner and their interactions are mediated in different ways. Spaces are often smaller, more private. Examination beds, seating, and usually a computer make up much of the work space. The interactions between patient and practitioner, an individual seeking to have symptoms confirmed and treated and the individual who can do that for them, reaffirm and reproduce each role, serving as routinized stabilizers. Their practices thus serve as practices that preserve social order. Although ANT orients itself away from human motivation, from a Bourdieusian perspective, these practices serving as routinized stabilizers of the social order is mutually sought after and beneficial to both parties. Those seeking to become patients, in the acknowledged and affirmed sense, need a physician diagnosis and treatment to legitimate their experiences and resolve their issues. Physicians, for their part, as a professional, require the patient to continue to need their services as their prestige comes not only from the cultural capital afforded them through their academics, but also from the status of their role in society, which infers much symbolic capital.

Those individuals leaving without being seen from a waiting area are considered to have been 'left without being seen', but those leaving without being discharged by a physician once they have been admitted into the spaces 'inside' the hospital are considered to be 'leaving against medical advice' and the significance of this is such that patients are often asked to sign a form to indicate that they are aware that they are leaving against the judgement of their health care practitioner. Thus even those patients who are admitting themselves for care are expected to

receive acknowledgement of a physician that signals they are free to leave (or be 'discharged'). How they leave or are discharged also carries out into other environments, as those who have been diagnosed as unwell have had their illnesses legitimated by a physician and are now considered to be patients, following Parsons' classically defined sick role (Parsons, 1951, 1964). In this way, not only is the patient able to take on a socially diminished role in response to their illness (Herzlich, 1973), but the authority of the physician as performed through diagnosis, prescriptions, insurance forms, and sick notes is carried out and enacted in the community, reaffirming and reinforcing the legitimacy of these mechanisms as mediators of physician's symbolic capital and thus reaffirming and reinforcing the legitimacy of the physician. In this way, the patient is dependent upon the physician for affirmation of their illness and the sick role, but they are also dependent upon the hospital spaces for the conversion of their status into that of a patient.

Hospital-based interactions are thus guided interactions with the medical system and are, by design and procedure, organized around the authority of physicians who 'admit' individuals who become patients and 'discharge' patients who become regular citizens.³ The design of hospitals, normalized scripts of behaviours, and checks and balances mediated by medical personnel, locked doors, and enclosed areas demonstrate Bourdieu's conceptualization of inhabited space as a site in which principles of classification, divisions, and hierarchies are established and reinforced (Bourdieu, 1992).

³ In Canada, nurse practitioners can also admit and discharge patients.

Spatial Contextualization of Practices and Interactions

As we have seen, spaces function as a script for action and as a mediator for the classification of individuals. They can also reaffirm and reinforce the legitimacy of roles. When we look more closely at these spaces as described above, we can see that more than functioning as a guide for scripts and interactions, space, as an active entity, reinforces professional hierarchy and should, following Bourdieu, be visible in the practices and interactions of professionals. Through the co-expression of professional habitus, professional practices, an expression of habitus and space, should be visible in day-to-day interactions - habits of thought, dispositions, through practice, ways of moving the body, knowledge possessed, and individual and collective identity.

In televised media, what is represented as work revolves around physicians 'doing medicine'.

We observed two workspaces most frequently portrayed when physicians were 'doing medicine', we refer to these as diagnostic space and procedural space, both of which emphasize the work of physicians in the diagnosis and treatment of patients. In diagnostic spaces there is a difference between private spaces and public spaces made private. Private spaces are patient examination rooms, rooms where films can be viewed, or in the offices of those who are assessing films or capturing them (MRI, radiology). These spaces allow for a direct interaction between the physician and the patient or the physician and their colleague.

Diagnostic space is dominated by physicians and their patients. It is physicians we see moving through and across space as they move from patient to patient, return to deliver updates, or to acquire additional information. In these exchanges, it is the physician that controls the flow and exchange of knowledge – they come into the space in which the patient is present, they control

what gets conveyed to the patient or family, they ask for and usually obtain information that is needed from the patient or family, defining and shaping what is relevant and what is not. In this way, both physician and knowledge are mobile, but the patient's assigned role is one of waiting to be told. In these situations, physicians will often reassure patients and their family that they are looking into their issue, or that they are doing their best to get the problem figured out. Often they mention waiting on a blood test or a film (MRI, X-ray, CT) to confirm or reveal further details. In this way, one often hears "we'll know more when get X". The goal appears to be assuring those in question that the situation is under control, regardless of how close they are to actual resolution.

Public spaces become diagnostic spaces when physicians move through this space while discussing patient cases with their colleagues. Public spaces tend to fold around physicians in televised media as not only the narrative orients to them, but also as the space shapes itself to meet the needs of the physicians. In many cases, physicians discuss diagnostic and treatment options with their peers while walking along hallways. In one example, two residents were attempting to convince an attending physician that they may have found an answer to what is causing a young patient to have grand mal seizures. The explanation they offer is shared both in a hallway and an elevator. This discussion folds the space around physicians, reshaping itself from public to diagnostic space.

Procedure space is reserved for treatment of traumas or surgeries. As such, procedure space includes both trauma rooms in the ER and operating rooms. Procedure space sees physicians interacting with patients in two different contexts: The first, in which patients are incapacitated

and suffering life threatening injuries or being operated on, and the second, in which patients are not incapacitated, but are still undergoing a procedure like suturing, casting of a limb, etc. Patients who are incapacitated are generally found in ER trauma rooms or in operating rooms. Those requiring procedures that are not life-threatening are more frequently found in shared examination rooms.

Unlike diagnostic space, procedure space tends to be almost always be private. When this changes is during times of crisis, multiple victims from an explosion in an apartment complex, for example, when many people are brought in and must be treated all at once. In some of these cases, these individuals have been placed in a shared open area in which each bed can be curtained off. Shared procedure spaces are often reserved for less serious cases, like multiple individuals requiring and waiting for sutures that might be all in one room.

In procedural space we tend to see deeper interactions between professions, as physicians interact with each other, nurses, and sometimes orderlies to organize urgent care for a patient in crisis. These are times at which the physician is often giving orders to others and having colleagues provide them with information (blood pressure, etc.), orienting others in/through space through their requests and assigned tasks. Interestingly, these spaces are also spaces of learning for resident surgeons. In some cases they stand by, during surgeries, observing, in other cases these physicians quiz the younger residents and interns on the patient's ailment, proper procedure, or parts of the anatomy. It is in these spaces that interns and residents learn to "see one, do one, teach one", a traditional pattern of learning among physicians (Mason & Strike, 2003; Tuthill, 2008; Vozenilek, Huff, & Gordon, 2004).

Physicians were presented as a mobile group of individuals who fluidly passed through space. The need for their sign off on documents or being called away to deal with a different situation suggests that not only does space in hospitals bend itself around physicians, but that their role generates the need for mobility and movement through space of those others who seek them out. The fluidity of movement of physicians and knowledge through these spaces is equalled only by the movement of technology. Things like blood test results, imaging from x-rays, CT, or MRI are porous and mobile, being transported from room to room. Like other actors, these technological elements are depended upon, sought after, and required to confirm or illuminate the diagnosis. These technologies are not doing the diagnosing, in most cases, but serve to reinforce the knowledge previously presented by the physician. Technology is invisible and yet what it produces is essential to the work of physicians. During times of crisis or great pressure, test results and films arrive with great drama – a nurse rushing in announcing them, a physician grabbing them from someone in the hall – and sometimes they are the focal point of what has gone wrong with a situation – a patient dies because a particular panel was not run, the lab results did not arrived in time to indicate a high level of a certain drug already present in the patient's system. In these cases the physicians has been failed by technology. Invisible knowledge, unattainable without the assistance of technology to make the body visible. Moreover, while those doing the imaging or processing of tests are rarely shown, they are often maligned by physicians as they are portrayed in media.

What we see when we begin to examine the spatial contextualization of practices and interactions is that not only are diagnostic spaces and procedure spaces the purview of physicians, but that many of these spaces, which in any other institution would be considered

public space, like hallways, for example, are rendered private and physician-oriented through their use as diagnostic or procedure space. It could be argued that in the case of physicians working in hospitals, as they are presented, spaces become physician oriented-space through the very presence of physicians, reflecting and reaffirming their dominant position within the institution itself. In this way, while some professionals have designated spaces, like radiology technicians or lab workers, physicians are not required to be allotted a particular space. That said, we acknowledge, of course, that hospitals are further divided into various departments with their own hierarchies between them, but at the level of the professions, hospital space is oriented towards physicians as much as it appears to guide the actions of those potential patients who enter therein.

Discussion

It is clear from our observations that the field of health care as represented in televised media is dominated by narratives of physicians and their work. Narrative arcs that included a focus on the patient and their predicament were always equally focused on the physician and their work, the patient being the subject upon which the medical practices were applied, serving to illustrate the skill and knowledge of the practitioner. The inherent visibility of the physician in these series, at the expense of other health care practitioners or technicians says something about the relationship of physicians to the field of health care (versus the relationship of other health care practitioners to the field of health care) and the dominant position of physicians within it. The visual element provided by televised media further emphasises the dichotomy between physicians as those around which space folds and to whom others (practitioners and

patients) orient. The presence of these individuals who support the work of physicians is alluded to through the presence of other materials – lab results, test films, the placement of patients in rooms, a cafeteria being available or food being purchased – but most often, the individual themselves are not shown.

The prevalence and visibility of the portrayal of physicians as individuals who are authority figures, who see patients, who provide care, overshadows the work of others who make the delivery of care services possible. Hospitals, in their design, are organized to facilitate the work of physicians and that of those supporting this work. The practices of these individuals reinforce their positions within the field of health care. Their routinized bodily activities, a product of their training facilitates the performance of their role of physician. These practices are of particular importance in the provision of health care services, where professional practices are, in many ways, what differentiates practitioners. Caring practices and techniques, arguably the defining characteristic of what makes a health care professional what they are, are no longer just about knowledge, but a set of legislated, technical practices that participate in creating the professional reality of health care professionals. Even as medicine continues to change and advance and the diagnoses of physicians are more commonly based on technological interventions, the performed role of the physician does not change over time, even if the performed tasks do change slightly.

Access to these practices, both technical and knowledge-based, are readily restricted to those who possess the cultural and economic capital to acquire them. Those individuals who undertake the study of medicine are in possession of institutionalized and embodied cultural

capital, but the value of this capital, both socially and economically, is tied to the field of health care and the positions within it that each respective health care profession holds. The field of health care, as a symbolic system, provides distinctions and hierarchies for ranking groups in which varying degrees of domination are tied to the level of prestige, esteem, and social value that each profession is understood to possess. Such symbolic systems legitimize social rankings, contributing to the representations of legitimacy of the domination of some professions over others in a particular field. In this way, each profession is in possession of varying levels of symbolic capital, which can be understood as a form of power that is not perceived as power, but is instead a legitimate demand for recognition, defence, obedience, and the service of others (Swartz1997).

Symbolic capital and its legitimizing effect can be seen enacted in practice not only through the legitimized and protected knowledge and technical skills that physicians possess, but also through the authority granted to their position and the practices that further support this. The authority of this role and the deference of other practitioners to it can be seen in the requirement that physicians were required to authenticate practices: interns and junior residents and non-physician personnel were required to seek out physician sign offs for charts or medication orders, signatures or approvals were needed for others to complete a task, physicians declared the time of death, physician approval was needed to admit or discharge patients. In our observations, physicians were the go-to people: when things needed to be reported, people had questions, or something was needed, it was a physician they sought. Physicians would often be pulled away from what they were currently doing because they were needed elsewhere. In many cases, nurses or interns would come find other physicians

attending to a patient, charting, getting something to eat, or finding a moment to sit and tell them that they were needed elsewhere or by someone else to attend to a different patient or an incoming emergency/ trauma. This sense of 'being needed' or being 'in demand' is conveyed to many new interns when more senior physicians remind them to eat when they can because they never know when they might next get the chance. The need to have physicians present, or the portrayal of this as reflected in televised media reinforces the placement of physicians in the dominant position within the field. That physicians are needed to take care of things, to authorize things, is an institutionalized form of symbolic capital. In this way, not only does space shape the actions and interactions of individuals, as shown above, but institutionalized procedures and practices do as well. Formalized in this way, symbolic power is both present, but generally unquestioned. Routinized as it is in procedure and embodied in practices, the positioning in the field is stabilized, enacted and re-enacted.

This narrative of being in demand is complemented by the role played by physicians as they are portrayed in televised medical dramas. Physicians are frequently seen to be in control of situations – calm, or at least collected, during stressful situations, and demonstrating decisive leadership, clear and logical thinking, and giving others orders or instructions of how to deal with crises, patient care, treatment of emergencies, patient follow up, and unexpected events. During crises, patients (where possible) and personnel orient to the physicians. Medics who bring patients into the emergency room orient towards physicians to share what information they have. Nurses and junior physicians orient towards senior physicians for instructions and guidance in dealing with the situation. More senior physicians are shown delegating and giving instructions to the nurses, interns, and residents; giving them their tasks, assigning them to

particular patients, and giving orders to junior physicians and nurses about follow up care for patients. That others orient towards them further supports the argument that physicians are perceived as the authority figure capable of making appropriate and timely decisions. That they possess such a position is attributable to their professional habitus, which, embedded as it is in cultural capital, is reinforced by symbolic power integrated through the practices of those around them who are also enacting their professional habitus. That physicians are those towards whom others orient and who are put in charge in various situations are both a matter of cultural competence and their position in the field. It is arguably often the case that other professions may have the technical skills or knowledge that would allow them to do part of what a physician does, for example, but without the position in the field, or the written approval of physicians (medical directive), and a change in the field positioning, they are at a loss to do so. The case of medical directives are themselves, unique, acknowledging that others are in possession or the capability to do a certain task or enact certain knowledge, but without the approval of physicians to institutionalize this as organizational practice, they are unable to do so in any official capacity.

What we see over the course of the observed episodes is a lingering portrayal of physician enactment of symbolic power, as derived from their cultural capital, (Bourdieu, 2000a), through their authoritative speech, control of situations, and giving of orders. There were many social dynamics in everyday practices that were governed by 'micro-contexts of local power', which enabled forms of normative symbolic power to occur and to go unnoticed as part of the ordinariness of everyday life in these working environments. Physicians were often shown to be impatient about services that they needed in order to finish a task, like a diagnosis, but were

waiting on various tests results or films to become available. Senior physicians were also sometimes curt or impatient with more junior physicians, while others were impatient with colleagues that did not function at the level or the speed that they did.

As the dominant profession, they not only continue to exert pressure on those other professions with whom they share the field, but this pressure is also enacted at the level of the individual in which ongoing repetitions of symbolic power maintains the structure of authority replicated at the level of professional fields. The relationships portrayed offer sometimes blatant examples of this symbolic power in which relations of domination are enacted and/or reinforced. As Bourdieu notes, the effectiveness of symbolic power is that it operates on habitus predisposed to respond to them (Bourdieu, 2002) and this is what professional education does – it socializes individuals into roles around the physician. The symbolic capital possessed by physicians is an efficient and effective mode of domination because it disguises the true nature of the relationship (Bourdieu, 1992, p. 127). What this creates is what Bourdieu refers to as durable dispositions (which constitute the habitus) in which incline individuals to act and react in certain ways, generating practices, perceptions, and attitudes, which are ‘natural’ or ‘regular’ without being consciously co-ordinated or governed (Bourdieu, 2000a, p. 12). It is through habitus that institutions are able to attain full realization (Bourdieu, 1992, p. 57) and it is through habitus that the “meanings objectified in institutions are kept alive” (Krais, 1993, p. 169). The “instruments of knowledge” (Bourdieu, 2000a, p. 170) held in common by physicians and other practitioners and staff working in hospitals in relation to decision-making and provision of care of patients means that non-physicians are constantly subject to a form of symbolic power. This combination of habitus, legitimated through cultural capital, and enacted

symbolically maintains the status quo between professions; their practices and body performances enacted in space reinforcing and reaffirming their habitus.

Technology also serves to reinforce the symbolic power of physicians, excluding the patient and sometimes other health care practitioners (most notably nurses) and entrusting only the physician who not only possesses the 'true' interpretation of the results, but also controls access to both the results and when and where they are shared with the patient. Spaces in which results are often interpreted (radiology labs, physician offices, etc.) are by design, out of reach for patients. This means that not only are physicians solely in control of when and what to share, it also allows them to appropriate knowledge as derived from the technical reading of the results by others (lab workers, technicians, etc.). The role of the physician places them at the centre of the exchange of knowledge. They require technology to confirm their diagnoses, but they also control the knowledge that is derived from this technology, appropriating it, reinterpreting it, and building a treatment plan around it. In this way, technology does not diminish the power of physicians, as some have argued (Bleakley & Bligh, 2009), but reinforces it. The role of space, not traditionally part of Bourdieu's traditional formula for his theory of practice, is present and yet disguised, as it is so often forgotten in studies of interactions. The spatial organization of the hospital both constrains and amplifies work hierarchies and roles. As spaces organized around the provision of health services, they are designed to admit, treat, and release individuals who seek health services. These spaces provide an architectural bounding for the narrative of a patient who must follow due process in order to become a patient, to see a physician, and to receive treatment and to be admitted to those spaces that facilitate the steps that allow them to transition from regular individual to patient to potentially a sick role.

In this way, space serves as a solid barrier, constricting actions to particular locations. In this way, the spatial organization of hospitals, as observed, encourages the following of particular scripts as patients move into and out of spaces at the instruction of health care practitioners, while physicians move across all spaces, openly. Once in place, scripts that are followed are traditional, reflecting well routinized practices that are well known to both patients and physicians as they perform their expected roles and progress through the familiar routine. The material objects in the room both further contextualize the space as what it is (waiting area, examination area, etc.) and places the patient and physician 'in place', both parties are aware of what script to follow as derived from the room they are in. That the material goods present throughout these spaces are those that physicians are anticipated to need while conducting an examination or doing an operation serves as a material reminder of the social order of the workspace. These material objects thus not only order space, but give rise to certain kinds of actions mediated by the space itself, guiding its occupants into certain practices through its ability to make the actors feel like they are 'in place', or in the right place, at least, for them to engage in the traditional patient-doctor script.

Physicians are able to mobilize the space around them, drawing on extra resources, sending patients and nurses into other spaces or recalling them when needed. This control over space, as portrayed in televised media, suggests a circuitous relationship between habitus, practices, and space in which exposure to social space in a professional environment serves to reinforce professional positioning within the hierarchy, as already internalized through the habitus, and further, practices, as expressions of habitus and thus also space, become routinized stabilizers that preserve the social order. Considered within the context of this research, it is not only

professional habitus and practices that express and legitimate the role of health care practitioners working in hospitals, but it is also the space within which they work, how that space is oriented, the scripts that it encourages through the placement of material objects, and the routinization that these scripts call forth that reaffirm not only what the spaces are to be used for, but who should occupy them, the classification of those that do, and the organization of these individuals into hierarchies reflected in the field of health care.

In this way, space serves as both an active agent in the creation, and as a reflection of, the cultural capital possessed by physicians. The naturalization of the organization of these spaces, the material goods that organize them, the ongoing routinization of scripts, are representations of the symbolic capital possessed by physicians. That not only space folds around them, but that they are able to orient space — to change public into private spaces as serves their needs — indicates a level of professional dominance that supersedes the architectural construction of the hospital site itself. Symbolic capital is also present in the ongoing affirmation of their ability to have and to utilize space as a resource, as both physicians and those around them are portrayed as being unaware of this.

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Conclusion

In this study we have sought to provide both a methodology for, and a study of, the transformation of a social representation. We had the overall goal of developing a methodology for the systematic study of the transformation of the social representation of an entrenched social phenomenon. To facilitate this, we were required not only to develop a suitable research methodology, but also to test it to assess its feasibility. A review of the current literature on the transformation of representations offered little in the way of accessing social representations in the past (Brondi et al, 2012; Chombart de Lauwe, 1971; Flament, 1996; Sammut et al, 2012) and we sought to avoid the common pitfalls identified by those working on the study of the transformation of representations in an effort to provide an original, feasible means through which to undertake such a study. To assess the applicability of the methodology, a study of the social representation of physicians in televised medical dramas was undertaken. We selected the case of the physician because of their existence as a known social phenomenon of long-duration with a prominent, continuous social presence.

We have sought to dissociate ourselves with the idea that the study of social representations must always be undertaken in the present, leaving unexplored the vast body of data already

existing to us and eliminating the opportunity of understanding not on the historicity of a representation, but also its evolutionary process. In this perspective, rather than considering a representation as existing only in a current present, we embrace the notion that social representations exist in a multiplicity at all points in time in their histories, suggesting that it is relevant to researchers to embrace not only Moscovici's argument that multiple methods should be used in the study of social representations (Moscovici, 1982), but also the often overlooked, but highly relevant, historicity of representations. In this way, we are able to acknowledge the construction of social representations from knowledge(s) present in its past and from its present, both long- and short-durations (Bôas, 2010).

This study of representation has been presented in the context of three journal articles, each intended to stand on its own as an autonomous, self-contained work, and each offering a different perspective that we hope, through this discussion, to draw together in a coherent whole. To facilitate this, we begin this discussion by reframing the context of our study and, following this, we will synthesize the principal characteristics of our proposed research methodology. We then explore the results of our assessment of our methodology, acknowledging its strengths and weaknesses, and discuss what this methodology can make visible/invisible as illustrated through our case study of the representation of physicians. Finally, we discuss the contribution this thesis makes to the furthering of sociological knowledge and propose other avenues that might be followed.

A Study of Representations and Change

A sociology of knowledge emphasizes that society is constitutive of (and through) human being. What people say and do, what they believe, and how they organize and classify the phenomena in their worlds are all part of systems of thinking about and knowing the world. They are enabled by representations that facilitate sense-making, demonstrating that what is logical or illogical in our social lives is linked to what is familiar or unfamiliar to us (Jovchelovitch, 2007). In this way, knowledge is deeply cultural, and accounting for such differences in knowledge forms and their process of change was a large part of Moscovici's work on the theory of social representations (Moscovici, 1976, 1981, 1982, 1984a, 1984b, 1988, 2000). The theory of social representations is concerned with how different communities located in different contexts and cultural frameworks construct knowledge about the world (Jovchelovitch, 2007).

Social knowledge can refer to any knowledge, but within the context of social representations theory, the interest is in the phenomenon of social representations. Comprising of knowledge(s) produced in and by everyday life, this knowledge is always plural, part of a lived experience of a community and culture, expressed in practices, relationships, cultural traditions, histories, and identities (Jovchelovitch, 2007). This everyday knowledge encapsulates cultural habits, identities, cultural traditions, emotions, and practices that find their way into knowledge systems (Jovchelovitch, 2007) and are used in the construction of a representation of a social phenomenon.

That social representations are formed of the values, opinions, practices, traditions, etc. as derived from a cultural knowledge system means that they are heavily influenced by their social

environments. As we have seen in our introductory chapter and as argued in article 2, chapter 5, these representations are a bounding of both past knowledges and current knowledge(s) and this comes to represent particular moments in time, such that a social representation, as a pluralistic and dynamic entity, can be considered different from moment to moment, decade to decade, as it is influenced in different ways by its past knowledges and meanings and its current social environment. It is easy to see, then how the identification of representations in the past could be of interest to researchers that seek to better understand their transformative processes. If social representations are a representation of both their historicity and present social environment, accessing these representations over time would provide a means through which to understand how social phenomena were conceptualized at different temporal moments. We could, if we had the means, choose select moments in time, examine the social representation, and compare it to other moments in time to identify its hierarchical structure and to see if the elements forming the core and peripheral systems have shifted or been replaced. The trouble being, as we have seen most particularly in article 2, chapter 5, is that such longitudinal research is littered with limitations, from funding shortcomings to the failings of human memory.

This thesis examines the process through which social representations transform. The basis of the thesis is derived from our understanding of social representations as complex, dynamic, pluralistic phenomena that both exist in time and draw their form and meaning from those past knowledge(s) that make up its existence and knowledge as it exists in the present. We will discuss this further below. In addition, we have identified three key factors that are fundamental to the study of the transformation of a social representation and imperative to the

construction of this project. The first requires that one be able to identify the elements forming the structure of a social representation. The second demands that these elements be identified in relation to which system, core or peripheral, that they belong to, facilitating their arrangement into a hierarchical structure. The third, and perhaps most limiting factor, is that one must be able to identify these first two key components systematically over a determined unit of time in order to determine the degree and significance of the changes in the structure.

Structuralist Perspectives and the Benefits of a Hierarchical Approach

The first two factors are dependent upon the premise that the structure of a social representation can be identified. It has been shown, that social representations themselves can be identified from varying sources of data, collected through any number of means. That these data can also somehow be broken down further, into key elements that can then be arranged hierarchically, and that that hierarchy has specific meaning is imperative to the study of the transformation of representations. The structuralist perspective thus argues that each social representation is in possession of a hierarchical structure organized into a core and peripheral system (J.-C. Abric, 1994). Each system serves a unique purpose in the composition, meaning, and maintenance of the representation, but work in an integrated, interdependent manner.

For many undertaking the study of a social representation, the overall goal is the identification of the content and/or meaning of a particular social representation. This first step in the study of a representation is standard practice, involving the identification of key elements or themes as they relate to the social phenomena in question. From this, the overall content of a representation can be presented. This method is particularly relevant for those studying

emerging representations (Washer, 2004, 2005; Washer & Joffe, 2006) or with a general interest in the social representation of a phenomenon (organ donation as its representation currently exists, for example, Morgan, 2009). Following this method allows for the identification of the content of a social representation, but it offers little in the way of explaining the relationship between the identified elements or themes and it cannot inform importance rankings. Overlooking the role of the structure of a social representation can be argued to be problematic because failure to categorize structural elements into core and peripheral systems erroneously gives equal weight to identified themes or elements.

The structuralist perspective thus has much to offer those interested in the ability to delve below the surface of the meaning and content through its ability to not only identify the elements of the structure, but to arrange these hierarchically into core and peripheral systems. It is only a small step from this explanation to the realization of the usefulness of this approach to those interested in studying how representations change over time. For those intent on studying the transformation of representations, it offers the benefit of accessing information about both the content and the structure over time. In this way, a structuralist perspective it can be argued to go one step further than some other studies of representations, by offering the opportunity to identify the key components providing most of the meaning to a representation.

The third key factor requires us to be able to evaluate the movement of core and peripheral elements over time. Structuralist perspectives, identifying the elements that comprise the core and peripheral systems, provide a micro view of a social representation and allow researchers

to identify subtle changes in representations that might not be visible to those who are only examining content. This micro perspective provides detailed information about the relationship between the elements in core and peripheral systems and can identify changes in their relations. This is highly useful for the study of the transformation of representations, as we know that changes in information and practices are often absorbed and integrated into the peripheral system, leaving the core unchanged. It is this ability to reveal even the most subtle of changes that makes it relevant in examining the transformation of representations. As we have noted, it is generally easy to identify brutal transformations because they occur rapidly and are associated with social upheavals (Flament, 1989), but progressive transformations, which are much more common, occur slowly, over time, and without great fanfare, making it difficult to identify changes when based solely on the analysis of content. Compounding this is the challenge of trying to determine when these turning points (Abbott, 2001a) actually take place, given that it is much easier to identify such timeframes once they have passed, as we discussed in article 2, chapter 5, leaving researchers to develop creative and sometimes experimental methods of studying the progressive transformation of representations (Flament, 1994c; Guimelli, 1989, 1994a, 1994b; Guimelli & Jacobi, 1990).

Reconceptualizing how we Study the Transformation of Social Representations

The conceptualization of social representations presented in this thesis is that of a dynamic, pluralistic, historically and temporally placed representations. As we will discuss below and in the next section, one of the goals of our methodology was to account for this complex

conceptualization of social representations in our work. In seeking to identify social representations in the past to study the transformation of a representation, we were also seeking to acknowledge the historicity and temporality of social representations.

We devised a method through which data can be aggregated over a bound, measurable unit of time and analyzed systematically into core and peripheral systems, allowing for the study of transformation of a representation of long duration. Our methodology embeds social representations in particular historical, temporal moments in order to assess the structural formation of the representation. We understand the dynamic nature of social representations makes them difficult to study, attributable to both their propensity for ongoing change and multiplicities. In designing our research methodology, we acknowledged that what we would be accessing would be but one of many representations of physicians.

Our interest in exploring the transformation of social representations led us to question how one might work backwards in time, to access representations in the past, and televised media provided one such venue within which to explore social representations as they would have existed. These representations provide an interesting case not only in that they are representative of dominant perspectives in society, but also that they are the representations that are being re-presented to society at large. Media freezes representation as they existed, however biased and represented of the dominant group they might be, they are still unaffected by weaknesses of human memory. Televised media has the noted benefit of freezing not only speech, but movement, providing much for observation. Seizing on this, we devised a method to access as much detail regarding the representation as possible, capturing not only what was

said, but what practices were undertaken. To gather as much data as possible to present a particular moment in time, particularly when medical dramas were still limited in amount, we decided to work with decades as our unit of time.

That we used a form of media to access representations as they appeared in the past offers the opportunity to examine the representations of current and past social phenomena, and another means through which to understand representations of long durations. Media is arguably underutilized as a resource for understanding social representations. Representations as they are understood at any given moment in history are accessible through television, radio, books, and legislative documents, among others. As article 1 and article 2, (chapters 4 and 5, respectively) demonstrate, it is possible to access social representations in the past through televised media. Such an approach has much to offer those interested in representations in the past, the transformation of representations, and the study of social phenomena already in existence.

Developing a means through which to approach the transformation of a dynamic entity requires creativity and the imposition of inevitable limitations. As we explained in detail in article 2, chapter 5, we approached the need to both standardize and account for the dynamic, changing nature of representations. To do so, we bound the temporality of our representation into measureable units of single decades. Data collected was aggregated over this measurement and compared with those of other decades. As we have argued in article 2, the units of time are arbitrary, but serve an important purpose in capturing the representation of a social object as it transitions over these moments in time. Given our application of our

methodology to the case of physicians, we can see in particular how there might be many portraits of a social actor over time, even within a single decade (see Appendix A, for examples), but when aggregated together, over time a full picture emerges, drawing key characteristics and behaviours to the surface. The bounding of social representations in a period of time allows for a consistent measure of representations. Our use of the structuralist perspective facilitates the observation of changes from one bounded moment in time to another through the analysis of its hierarchical structure and the relations between these elements. The use of multidimensional scaling, as we have noted, article 1 and 2 (chapters 4 and 5) offer a particularly unique means of relating these data spatially.

Applying the Methodology to the Case of Physicians

Two of the articles forming the body of this thesis were dedicated to presenting findings from our analysis of representations of physicians. These articles served the double purpose of presenting original, relevant findings suitable for publication and also to demonstrate the validity of the proposed research methodology. Study findings thus had to demonstrate that not only could social representations be derived from televised media, but that it was possible to identify the core and peripheral systems of these representations in order to track movement in their structure over time. The choice of physicians as the case with which to apply our methodology was made for several reasons, including the long duration of their existence as a profession and thus, the long duration of their representation; ongoing interest in physicians as an ideal profession which provided ample literature with which to contextualize

our results and confirm the core and peripheral elements, and; their prevalence in televised media since the inception of television.

The results derived from the methodology can be found in both article 1 and article 3 (chapters 4 and 6). Article 1, chapter 4, presents the results of our analyses as they relate to the structure and transformation of the social representation. The overall goal was to identify the elements of the social representation, to determine which were part of the core and peripheral systems, and finally, to determine if any of these elements had changed positions over the course of each decade under analysis. The methods used rests on observational techniques that facilitated capturing data both about discourse and practice, providing an overall representation. We demonstrated not only that representations could be identified using televised media, but that it is also possible to use such media and measured units of time to systematically assess social representations. Results of this article suggest that the study of social change via representations may be more complicated than previously thought, necessitating the use of a structuralist perspective, because social upheavals like patient movements, changes in technology, and battles over health insurance that were prevalent in society during these time frames did not cause visible changes to the core of the representation of physicians as portrayed in media. Subtle changes, identifiable only through an analysis of the peripheral system, demonstrate the usefulness of a structuralist perspective and further illustrate the role of the periphery as a shock absorber for the core.

This structuralist approach to representations is limited in the context of our chapter, however. The need for brevity and clarity prevent a broader analysis of the representation itself in order

to demonstrate our key goal of transformation over time. The broader exploration of the representation derived using our methodology was thus undertaken in article 3, chapter 6. Placed in the context of space and seeking to explore the role of capital, we further unpacked the representation of physicians. The article examines the spatiality of professional practices and interactions of health care practitioners to begin a discussion of the (re)production of professional roles and their relation to space and capital.

It is clear from our findings that the field of health care is dominated by narratives of physicians and their work. A spatial analysis demonstrates that space folds around physicians, while individuals orient to them for care, advice, and authorization. Physicians are viewed as an authority figure, and their symbolic capital, and its legitimizing effect, can be seen enacted in practice through the need to have physicians authorize things, to legitimize patient illness, and take care of things. In this way, not only is the role of the physician one shrouded in symbolic capital, but hospitals, in their design, are organized to facilitate the work of physicians, creating an institutionalization of this capital. The results demonstrated that many of the elements that formed the structure of the social representation, like physicians and their authority, decision-making, control, their impatience, their care work of diagnosis and treatment, all contribute to the symbolic capital of the physicians themselves. The individual, micro-level interactions between physicians and others serve to reinforce their symbolic capital, maintaining the structure of authority through their practices, enacted in space and reinforcing professional habitus. We suggest that there is a circuitous relationship between habitus, practices, and space in which exposure to social space in a professional environment serves to reinforce

professional positioning within the hierarchy, within which habitus, practices, and space become routinized stabilizers preserving the professional order of the field of medicine.

While the analytical context sought to assess more than just the representation, we are able to examine the large bodies of data collected and organized with our methodology, and to begin to broaden our discussion of how physicians are represented in televised medical dramas. The methodology was thus flexible enough to organize large amounts of data into small components that could be quantified for spatial analysis, as in article 1, chapter 4, but it does so without compromising the detailed, descriptive data required for further assessment of the content of representations.

Limits of our Approach

In an ideal situation, the study of the transformation of social representations would take place over long periods of time with analyses of surveys, interviews, or word associations conducted year after year in an attempt to suss out subtle changes as they are occurring. This would be, of course, most feasible when applied to new social phenomena (MRSA, SARS, MERS) that could then be studied moving forward through time. As we have noted, following this ideal path leaves us with a large blind spot when it comes to those representations that are already in existence.

When unable to follow the most ideal of processes, it is inherent that our research design must suffer limitations that allow its adaptation to current boundings of time, feasibility, and funding. While one of our goals was to develop a methodology for the study of social representations in the past, the ideal would have been to have been able to study these representations as they

existed among social groups at the time. Thus while our method allows us to systematically analyze the social representation of the physician as it existed from 1954-2010, it presents a single story of this representation, stripped of its multiplicity through its inception largely through the dominant social groups at the time, and made static through the very means that preserve it for us to view 60 years later. In this way, one of the greatest strengths of this methodology for studying representations in the past, is thus also its greatest weakness for those wishing to study a new phenomenon moving forward, where ideally the study of social representations could be undertaken with multiple, different social groups, in addition to the study of media.

Using media data was not without its complications, most notably, the unanticipated difficulties in accessing earlier televised series from other libraries. It was not anticipated that libraries would be completely resistant to sharing access to media. The kindness of posters on comment boards and forums on IMDb made it possible to access four series that were refused by university libraries.

The use of observation as a data collection technique for televised media placed the observer at a distinct sensorial disadvantage. Using media as the data collection focus limits the researcher to visual and auditory elements. Additionally, audio has been carefully selected and tuned, preventing the capture of informal data elements that one would find in traditional observations. While the lack of fieldworker-participant interaction may provide increased objectivity in observations reducing the likelihood of influencing changes in the representation, the lack of integration and relationships limits observations, reducing multiplicity of physician portrayal.

Observing media also upsets the traditional flow of observational research because there is no natural flow to time that would allow the fieldworker to catch up on notes or thoughts during the context of the fieldwork. Accurate observations are not possible without multiple viewings, rewinds, and pauses and there are no opportunistic moments in which the researcher can capture information from behind the carefully constructed façade, which in the physical world, often yields some of the best data.

Finally, the limitations of time have made it such that our methodology has been applied to only one case study. As with all research, multiple iterations of its application would have led to a more robust methodology that was, perhaps, more flexible in its use. Further research is thus required to assess its ongoing applicability and the feasibility of adapting it for use with other forms of media.

Contribution to Sociological Knowledge

Beginning with the introductory chapter, we have maintained that this thesis puts forth two original contributions to sociological knowledge, offering both a methodology for and the study of the transformation of a social representation.

Our methodology provides a means through which to study social representations in the past and the transformation of representations. Breaking with a path established by some of the best known names in social representations research and following a path established by Chombart de Lauwe (1971, 1984) and Bertrand (2002, 2003) who both engaged in the study of representation through non-reactive data sources, we sought to use televised media as a means through which to access representations in the past. The importance of accessing

representations in the past were derived from an interest in the process of the transformation of social representations and in the study of social phenomena already in existence, rather than newly emerging phenomena and representations. The study of older, potentially stabilized representations is an uncommon undertaking in the study of representations. We conceived of representations in the past as being not only accessible to researchers, but of being highly different from social representations of the past. Acknowledging that representations in the past present limitations for researchers interesting in studying the historicity of current social representations, but keenly aware of the value of understanding these representations and their transformations over time, we developed a means to access a sample that could capture the dynamic nature of social representations, but would not be limited by memory or influenced by modern representations, two flaws discussed in article 2, chapter 5. When examined in the context of a structuralist perspective of social representations, our method of accessing representations in the past through observations of televised media enables researchers to systematically identify and track the organization of, and relationship between, elements forming the core and peripheral systems, facilitating the study of change.

The evaluation of our proposed method was undertaken using the case of the physician, a profession of great interest to the social science, health researchers, and media studies alike. Having noted that researchers had yet to undertake a study of the social representation of physicians, it was determined that televised medical dramas would be an ideal source from which to attempt to derive the data necessary for a study of social representations. In this way, a study of the social representations of physicians not only offers information on their representations, but also illustrates the plausibility and feasibility of our methodology and

methods. As we noted in article 1, chapter 4, the core structure of the social representation of the physician in televised media converged early, while peripheral elements continued to shift positions over time. Its core element <authority figure>, while always associated with its sister element <application of knowledge and acquisition of information>, remained at such a distance from all elements, suggesting that it is associated strongly with the core. As noted above and in article 1, chapter 4, the use of a structuralist perspective provides the means to access subtle changes in representations. Our study of the social representation of the physician suggests that changes in social representations that result in changes in social practices (or vice versa) may not be visible without the use of a structuralist perspective. The study of the content of a social representation, without the study of its structure, may not reveal the effect of small changes.

Other contributions worth noting are derived from our third article, even though they may not directly relate to the two primary goals of our study. This final article expands on the findings of the first article, offering one of few perspectives of the interactions of health care professionals and their practices. Using space as an active agent, rather than just as a context, and emphasizing the importance of the relationality of space, of which there is little focus in the literature, we sought to begin a discussion regarding how the health care system and professional roles are (re)produced in place/space by workers and their practices. Initial findings from this analysis suggests that what we observe in televised medical dramas is reflective of social processes of differentiation that sociologists have been observing in the field of medicine and among the professions in general (Becker, 1961; Freidson, 1970, 1971, 1983, 1985; Johnson, 1972 ; Larson, 1977, 1979; Pavalko, 1971; Pellegrino, 2002; Rayack, 1967). Of

particular interest, in the context of research on social representations, is how space and capital are modalities upon which the formation of social representations occurs. The interactions of medical professionals in space, the negotiation of capital, and the (re)production of professional roles on television, as in reality, are the basis upon which the sociogenesis and ongoing negotiation of social representations rest.

A Methodology that Promises Further Applicability

As with most projects, the limitations of time and funding require that project goals be concise and limited, but we contend that the flexibility of our research methodology hints at a wider applicability. Like those methodologies piloted by others studying representations in the past, we offer a means with which to access representations in the past, a field long left fallow but offering insightful information on much of our current social phenomena.

As we have demonstrated with our initial evaluation of the methodology, exploring social representations in the past as a way to study the transformation of social representations has the potential to inform much of what we think we know. Our study of the social representation of physicians suggested that changes in society and social practices, regardless of their historical significance, may not always incite measurable changes in dominant social representations, affirming the benefit of a structuralist perspective in detecting subtle changes in peripheral elements. Broadening this study moving forward, by integrating both a media and participant component could provide contrasting perspectives of where and how representations transform. We wonder if such research would have revealed changes in the social representation of individuals or social groups, even while the dominant perspective as

shown in televised media revealed little change. This would arguably offer much to a combined study of the transformation of social representations and the relationship between representations and practices.

This model also offers the propensity to generate new knowledge about old things. While the study of newly emerging phenomena is an ideal time to study social representations, the study of older representations allows us to delve into the sociogenesis of representations, to appreciate their historicity and temporality, and to better understand how knowledge is created, changed, and re-created. Facilitating access to representations in the past opens a larger framework for the study of social representations and social knowledge in general. The use of televised media in the representational process could also be further explored, as they are involved in the process of producing and circulating social representations and the representations they share, those dominant within any given society, are arguably part of what binds particular social ideations, like those about physicians and their work, to society.

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Appendix A

List of Television Series Featuring Physicians

As derived from Turow (2010)

1950s

City Hospital (CBS Broadcasting, Inc., drama, 1951-53)

Diagnosis: Unknown (CBS Broadcasting, Inc., drama, 1959)

The Doctor (National Broadcasting Company, drama, 1952-53)

The Donna Reed Show (American Broadcasting Company, comedy, 1958-66)

Hennesey (CBS Broadcasting, Inc., comedy, 1959-62)

King's Row (American Broadcasting Company, drama, 1955-56)

Medic (National Broadcasting Company, drama, 1954-56)

1960s

Ben Casey (American Broadcasting Company, drama, 1961-66)

Bold Ones/The Doctors (National Broadcasting Company, drama, 1969)

The Breaking Point (American Broadcasting Company, drama, 1963-64)

Dr. Kildare (National Broadcasting Company, drama, 1961-66)

The Eleventh Hour (National Broadcasting Company, drama, 1962-64)

The Fugitive (American Broadcasting Company, drama, 1963-67)

Julia (National Broadcasting Company, comedy, 1968-71)

Marcus Welby, M.D. (American Broadcasting Company, drama 1969-76)

Medical Center (CBS Broadcasting, Inc., drama, 1969-76)

The Nurses (CBS Broadcasting, Inc., drama, 1962-65)

Tom, Dick, and Mary (National Broadcasting Company, comedy, 1964)

1970s

A.E.S. Hudson Street (American Broadcasting Company, comedy, 1977-78)

The Bob Crane Show (National Broadcasting Company, comedy, 1975)

Code R (CBS Broadcasting, Inc., drama, 1977)

Doc (CBS Broadcasting, Inc., comedy, 1975-76)

Doc Elliot (American Broadcasting Company, drama, 1973)

Doctors Hospital (National Broadcasting Company, drama, 1975-76)

Doctors' Private Lives (American Broadcasting Company, miniseries, 1978)

Emergency! (National Broadcasting Company, drama, 1972-79)

House Calls (CBS Broadcasting, Inc., comedy, 1979-82)

The Interns (CBS Broadcasting, Inc., drama, 1970-71)

The Lazarus Syndrome (American Broadcasting Company, drama, 1979)

Little People (National Broadcasting Company, comedy, 1972-74)

*M*A*S*H* (CBS Broadcasting, Inc., drama/comedy, 1972-83)

Matt Lincoln (American Broadcasting Company, drama 1970-71)

M.D. (American Broadcasting Company, drama, 1978)

Medical Story (National Broadcasting Company, drama, 1975)

The Practice (National Broadcasting Company, comedy, 1976-77)

The Psychiatrist (National Broadcasting Company, comedy, 1976-77)

Quincy, M.E. (National Broadcasting Company, drama, 1976-83)

Rafferty (CBS Broadcasting, Inc., drama, 1977)

Temperatures Rising (American Broadcasting Company, comedy, 1972-74)

Trapper John, M.D. (CBS Broadcasting, Inc., drama, 1979-86)

Westside Medical (American Broadcasting Company, drama, 1977)

1980s

*After M*A*S*H* (CBS Broadcasting, Inc., comedy, 1983-84)

Buck James (American Broadcasting Company, drama, 1987-88)

Chicago Story (National Broadcasting Company, drama, 1982)

China Beach (American Broadcasting Company, drama, 1988-91)
The Cosby Show (National Broadcasting Company, comedy, 1984-92)
Cutter to Houston (CBS Broadcasting, Inc., drama, 1983)
Doctor, Doctor (American Broadcasting Company, comedy, 1989-93)
Doogie Howser, M.D. (American Broadcasting Company, comedy, 1989-93)
Empty Nest (National Broadcasting Company, comedy, 1988-95)
E/R (CBS Broadcasting, Inc., comedy, 1984-85)
Growing Pains (American Broadcasting Company, comedy, 1985-92)
Heartbeat (American Broadcasting Company, drama, 1988-89)
It Takes Two (American Broadcasting Company, comedy, 1982-83)
Kay O'Brien (CBS Broadcasting, Inc., drama, 1986)
Nurse (CBS Broadcasting, Inc., drama, 1981-82)
Ryan's Four (American Broadcasting Company, drama, 1983)
St. Elsewhere (National Broadcasting Company, drama, 1982-88)
Trauma Centre (American Broadcasting Company, drama, 1983)

1990s

Becker (CBS Broadcasting, Inc., comedy, 1998-2004)
C. Everett Koop, M.D. (USA Broadcasting, miniseries, 1991)
Chicago Hope (CBS Broadcasting, Inc., drama, 2000)
Diagnosis Murder (CBS Broadcasting, Inc., drama, 1993-2001)
Dr. Quinn, Medicine Woman (CBS Broadcasting, Inc., drama, 1993-98)
ER (National Broadcasting Company, drama, 1994-2009)
Going to Extremes (USA Broadcasting, drama, 1992-93)
The Human Factor (CBS Broadcasting, Inc., drama, 1991-92)
L.A. Doctors (CBS Broadcasting, Inc., drama, 1998-99)
Law and Order: Special Victims Unit (National Broadcasting Company, 1999-present)
Northern Exposure (CBS Broadcasting, Inc., drama, 1990-95)
Nurses (National Broadcasting Company, comedy, 1991-94)
Picket Fences (CBS Broadcasting, Inc., drama, 1992-96)
Providence (National Broadcasting Company, drama, 1999-2002)
Sherman Oaks (Showtime, comedy, 1995-97)

Third Watch (National Broadcasting Company, drama, 1999-2005)

University Hospital (USA Broadcasting, drama, 1995)

2000s

Autopsy (Home Box Office, reality, 2009)

Big Medicine (The Learning Channel, reality, 2007-present)

Body of Evidence (truTV, reality, 2002)

Bones (FOX Broadcasting Company, drama, 2005-present)

Celebrity Rehab with Dr. Drew (VH1, reality, 2008)

City of Angel (CBS Broadcasting, Inc., drama, 2000)

Code Blue (The Learning Channel, reality, 2002)

The Critical Hour (Discovery Health, reality, 2003)

Crossing Jordan (National Broadcasting Company, drama, 2002-7)

CSI: Crime Scene Investigations (CBS Broadcasting, Inc., drama, 2000-present)

CSI: Miami (CBS Broadcasting, Inc., drama, 2002-present)

CSI: NY (CBS Broadcasting, Inc., drama, 2004-present)

Deliver Me (Discovery Health, reality, 2008-present)

Doc (PAX, drama, 2001-4)

Doctors without Borders (National Geographic, reality, 2003)

Dr. 90210 (E! Reality, 2004-present)

Dr. Vegas (CBS Broadcasting, Inc., drama, 2004-5)

Everwood (Warner Brother, drama, 2002-6)

Extreme Makeover (American Broadcasting Company, reality, 2002-5)

Gideon's Crossing (American Broadcasting Company, drama, 2000-2001)

Grey's Anatomy (American Broadcasting Company, drama, 2005-present)

Inconceivable (National Broadcasting Company, drama, 2005)

HawthoRNe (Turner Network Television, drama, 2009)

Heartland (Turner Network Television, drama, 2007)

Hopkins 24/7 (American Broadcasting Company, documentary, 2000)

House (FOX Broadcasting Company, drama, 2004-present)

Law and Order: Criminal Intent (National Broadcasting Company, drama, 2001-present)

MDs (American Broadcasting Company, drama, 2002)

Medical Investigation (National Broadcasting Company, drama, 2004-5)
Mental (FOX Broadcasting Company, drama, 2009)
Mercy (National Broadcasting Company, drama, 2009)
Miracle Workers (American Broadcasting Company, reality, 1006-present)
Mystery Diagnosis (Discovery Health, reality, 2005-present)
NCIS: Naval Criminal Investigative Service (CBS Broadcasting, Inc., drama, 2003-present)
Nip/Tuck (FX Networks, drama, 2003-present)
Nurse Jackie (Showtime, comedy, 2009-present)
Paramedics (The Learning Channel, reality, 2001)
Plastic Surgery: Before and After (Discovery Health, reality, 2002-6)
Presidio Med (CBS Broadcasting, Inc., drama, 2002-3)
Private Practice (American Broadcasting Company, drama, 2007-present)
Royal Pains (USA Broadcasting, comedy, 2009)
Saved (Turner Network Television, drama, 2006)
Scrubs (National Broadcasting Company, comedy, 2001-present)
Strong Medicine (Lifetime, drama, 2000-2001)
3lbs (CBS Broadcasting, Inc., drama, 2006)
Three Rivers (CBS Broadcasting, Inc., drama, 2009-present)
Trauma (National Broadcasting Company, drama, 2009-present)
Trauma: Life in the ER (The Learning Channel, reality, 1997-2002)
Untold Stories of the ER (The Learning Channel, reality, 2005-present)

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Appendix B

Code Lists

Full Code List with Symbols to Group Codes in ATLAS.ti

& announcing, calling death	& gathering information from peer
& apologizes	& giving orders or instructions
& approval, sign off needed	& giving treatment
& being confided in	& informing family about situation
& berating other personnel	& informing patient about situation
& berating peer	& learning
& brief media	& patient belongs to physician
& checking in on patient	& physical examination of patient
& covering shift for peer	& prescribing/ writing script
& dealing with emergency/crisis in patient status	& prevention
& diagnosis	& providing advice
& documenting	& putting patient first, above other things
& doesn't know	& reading chart
& doing procedure	& reading x-rays, lab reports, etc.
& escorts patient	& reassures and/or comforts family
& explaining to family	& reassures and/or comforts patient
& explaining to patient	& reassures, comforts peer
& explaining to/discussing with fellow professional	& reassures/comforts other personnel
& gathering information from patient or family	& rushing
	& seeking advice (personal issue)
	& seeking advice (professional issue)

- & supportive of other personnel
- & threatens peer
- & trying to save life or saving/ed life
- & updating family on patient condition
- & updating peers on patient condition
- & with technology or needing technology to confirm, etc.
- *attentive
- *calm in stressful situations
- *caring
- *charisma
- *clear, logical thinking
- *committed (dedicated, only committed from lit
- *compassion
- *confident
- *control
- *cope with ambiguity, change, uncertainty
- *courage
- *decisive leadership
- *discrete, confidential
- *empathy
- *enthusiasm
- *ethical, moral, principled
- *experienced
- *forthright
- *going beyond
- *good communication, listening
- *humanism
- *humble
- *informs the patient
- *initiate treatment

- *intelligent
- *knowledge
- *knows the answer
- *long-term learning
- *make diagnosis
- *qualified, ability, competence
- *recognition of limitations
- *represents patient's interests
- *respectfulness
- *respects patient preference
- *responsibility
- *skill
- *spends time
- *supportive of peers
- *tactfulness
- *thorough
- *truthful, honest
- *up-to-date
- 1 male
- 2 female
- 3 young
- 4 old
- Acknowledge bias
- Anger
- Annoyed or frustrated
- Arrogant or know-it-all
- Asked for help
- Attractive
- Authority figure (things can be reported to them, mentoring, in charge etc.)
- Comical or 'clown'

Demands excellence	Jealous
Described as best, good, highly thought of, etc.	Joking with peer(s) or others
Described as serving others	Lacks courage
Difficult to work with	Lazy
Disagree with peer presented as incompetent	Lie
Discussing family matters (non-relationship)	Make mistakes
Discussing relationship	Modest
Dismissive of patient symptoms	Must control/hide emotions
Distracted	Must obey
Doesn't like female physicians	Negative
Don't have a lot of time to do things like eat, see family, etc.	Not paid a lot
Drama	Only human
Educated/calculated risk	Overwhelmed
Egotist	Passive
Flirting	Patient
Formal demeanor	Physician as patient
Fragile	Physician to make things 'right' or 'fix' things and 'save lives'
Generous	Plans ahead
God -complex or playing or all-knowing etc.	Pride
Greedy	Quarrelsome
Helpful	Rarely take time away
Hypocrite	Relationship or family drama
Impatient	Religious
Impulsive	Reluctant to do task (announce death, etc.)
In demand - being called away from current to something else	Research
Incompetent	Rule breaker
Indifferent	Sadness
Isolated	Sensible
	Serious
	Takes initiative

Talented

Talks too much

Teaching a lesson to viewers

Tenacity

Thanking others

Tired or exhausted

Trustworthy

Unmotivated

Unstable

Unsure/lacks confidence

Untrustworthy

Willingness

Workload, busy at work

Code List Organized into Subcodes

Knowledge and Information

& announcing, calling death

& trying to save life or saving/ed life

& diagnosis

& doing procedure

& giving treatment

& documenting

& learning

& physical examination of patient

& prescribing/ writing script

& reading chart

& reading x-rays, lab reports, etc.

& seeking advice (personal issue)

& seeking advice (professional issue)

*initiate treatment

*intelligent

*knowledge

*knows the answer

Physician to make things 'right' or 'fix' things and 'save lives'

& checking in on patient

& dealing with emergency/crisis in patient status

& providing advice

*experienced

*make diagnosis

Educated/calculated risk

*long-term learning

*qualified, ability, competence

*recognition of limitations

*skill

*thorough

*up-to-date

& explaining to family

& explaining to patient

& explaining to/discussing with fellow professional

& gathering information from patient or family

& gathering information from peer

& brief media

& informing family about situation

& informing patient about situation

& updating family on patient condition

& updating peers on patient condition

& with technology or needing technology to confirm, etc.

Talented

*informs the patient

Authority

& approval, sign off needed

& berating other personnel

& berating peer

& giving orders or instructions

*calm in stressful situations

*control

Authority figure (things can be reported to them, mentoring, in charge etc.)

Formal demeanor

Plans ahead

*clear, logical thinking

*decisive leadership

Serious

In demand - being called away from current to something else

Takes initiative

Sensible

Thanking others

Demands excellence

*confident

*cope with ambiguity, change, uncertainty

*truthful, honest

*ethical, moral, principled

Asked for help

Described as best, good, highly thought of, etc.

& escorts patient

*good communication, listening

& being confided in

Trustworthy

& rushing

Acknowledge bias

*discrete, confidential

Arrogant or know-it-all

*charisma

*courage

*humble

Personal Life

Discussing family matters (non-relationship)

Discussing relationship

Drama

Flirting

Relationship or family drama

Caring

& reassures and/or comforts family

& reassures and/or comforts patient

& reassures, comforts peer

& reassures/comforts other personnel

Patient

*caring

*compassion

*empathy

*supportive of peers

Sadness

Generous

Helpful

& supportive of other personnel

Willingness

*humanism

Joking with peer(s) or others

*tactfulness

Responsible and Dedicated

Tenacity

Rarely take time away

Rule breaker

& covering shift for peer

& patient belongs to physician

& apologizes

Isolated

Tired or exhausted

Workload, busy at work

Must control/hide emotions

Must obey

Not paid a lot

Only human

Overwhelmed

Disagree with peer presented as incompetent

Don't have a lot of time to do things like eat, see family, etc.

Described as serving others

*going beyond

*represents patient's interests

*respectfulness

*respects patient preference

*responsibility

& putting patient first, above other things

*committed (dedicated, only committed from lit

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*attentive

*enthusiasm

Negative

Unmotivated

Unstable

Untrustworthy

Talks too much

Difficult to work with

Religious

Reluctant to do task (announce death, etc.)

Negative

Hypocrite

Impatient

Impulsive

Egotist

Pride

Quarrelsome

God -complex or playing or all-knowing etc.

Greedy

Lazy

Lie

Make mistakes

Incompetent

Indifferent

Unsure/lacks confidence

Jealous

& threatens peer

*forthright

Lacks courage

Dismissive of patient symptoms

Distracted

Anger

Annoyed or frustrated