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Wearing Different Hats: Micro Role Transitions in Two Contexts

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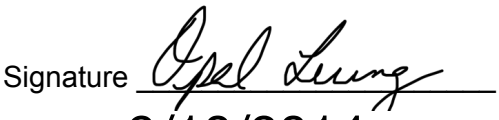
Signature 

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DEDICATION

To my parents, Winnie and Mario Leung.

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ABSTRACT

Wearing many hats: Micro Role Transitions in Two Contexts

Opal Man-Ching Leung

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Management

Individuals make transitions between roles everyday as they move from home to work to other settings. This dissertation extends the work of Goffman (1959), Hall & Richer (1988), and Ashforth et al. (2000, 2001) on the topic of micro role transitions, which are the "frequent and usually recurring transitions, such as the commute between home and work" (Ashforth et al., 2000: 472). While the context of most of the research on micro role transitions has typically been focused on the work-home boundary (e.g. Rothbard et al., 2005; Nippert-Eng, 2008; Greenhaus & Powell, 2006; Hall & Richter, 1988), the three studies of this dissertation elaborate on the extant research by examining the inter-role transitions between two different occupational roles and the intra-role transitions between physical and virtual worlds. By changing the focus from the work-home context to these other boundaries, it was possible to create a more nuanced theoretical understanding of how individuals experience micro role transitions and the agency that individuals have when they switch from role to role. On a practical level, the findings are expected to be helpful to individuals who have multiple occupational roles, create appropriate boundaries around their occupational domains by systematically thinking about different variables that are related to the self, the structure of their domains, and the relationship between their multiple roles.

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INTRODUCTION

The concept of inhabiting multiple roles has become more ubiquitous as "everyday life is increasingly mediated through formal roles in organizational settings" (Ashforth, Kreiner, & Fugate, 2000: 472). In recent years, the internet has enabled individuals to create virtual roles in cyberspace either through the creation of avatars (e.g. Schultze, 2014) or representations of themselves in a more direct way by attempting to replicate their physical selves in the virtual domain (e.g. interacting with potential mates on dating websites) (Madden & Lenhart, 2006). Thus, an individual can create several public identities for oneself in both physical and virtual domains. Furthermore, the anonymity of the virtual domain enables individuals to create selves that may or may not be markedly different from their physical selves (Schultze, 2014).

The focus of extant scholarly work on role boundaries has mainly been on the boundary between one's home and work roles (Rothbard, Phillips, & Dumas, 2005; Nippert-Eng, 2008; Greenhaus & Powell, 2006; Hall & Richter, 1988). Work role transitions (i.e. the transition from one work role to another) have been studied but they have been mainly studied as macro role transitions, which are defined as, "passages between sequentially held organizational, occupational, or professional roles" (Ibarra & Barbulescu, 2010: 136; Louis, 1980). The focus of this dissertation is on the creation and crossing of boundaries between and within simultaneously held occupational roles.

The three papers of this dissertation extend Goffman's work on role theory and the work on boundary theory (e.g. Nippert-Eng, 1995, 1996; Hall & Richter, 1988) (see

figure 1). The first paper examines the difficulties that individuals face when they transition from one occupational role to another. In the first context, 30 individuals who maintain two different occupational roles were interviewed. The data set was rich and it was possible to address two different research questions. The second context was a group of 29 professors who had experience teaching both online and traditional classes. Table 1 summarizes and compares the three papers.

Figure 1: Overview of the 3 Papers

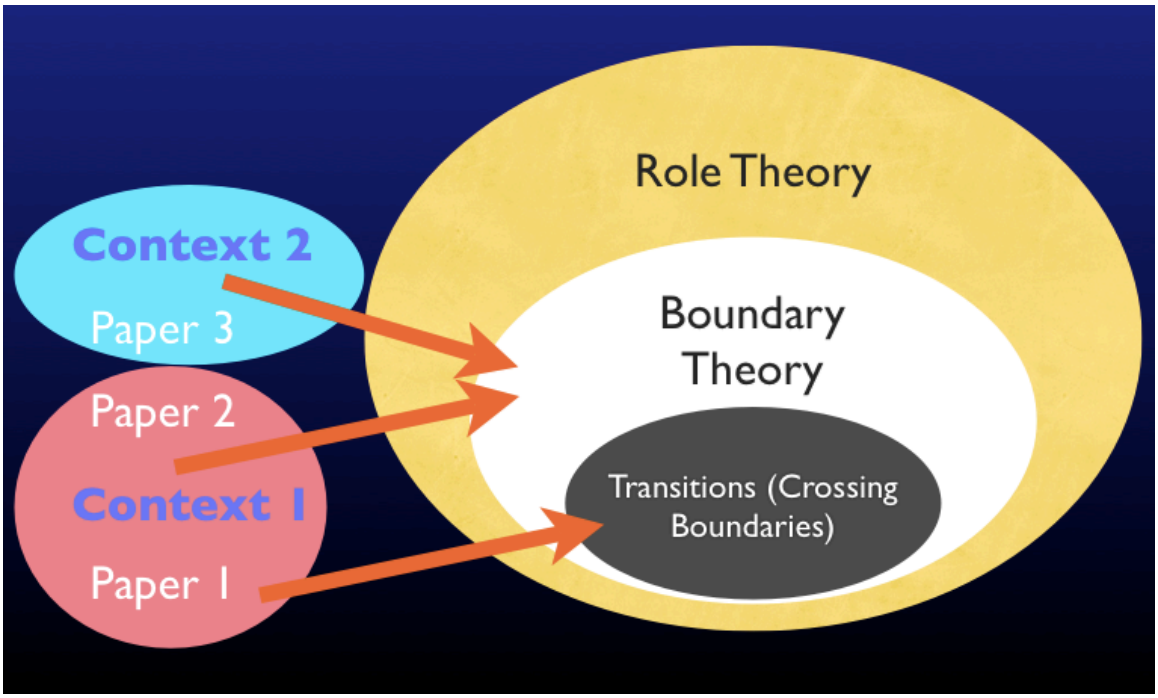


Table 1: Summary of the three papers

Overarching question: How do individuals create and cross their role boundaries?

	Context 1		Context 2
Description	Individuals with two different occupational roles		Professors who taught both online and traditional courses
Boundary type	Inter-role boundary		Intra-role boundary
Sample	30 informants		29 informants
Research Questions	***Paper 1:*** When and why do individuals with segmented roles have difficulty crossing boundaries?	***Paper 2:*** (1) When are individuals more likely to create a permeable boundaries around each occupational domain? (2) When are they more likely to create impermeable boundaries around each occupational domain?	***Paper 3:*** When and why do professors integrate or segment their physical classrooms and their virtual classrooms?
Key Contribution	Some informants seemed to describe a "switching skill" that they developed through various experiences.	Individuals considered role status, structural norms, and the relationship between roles when creating boundaries around each of their domains.	Professors who taught both online and traditional courses had different levels of integration between their physical and virtual domains, depending on their length of teaching experience, comfort with technology, perceptions of the virtual classroom, type of class taught, and amount of novelty introduced by the virtual environment.

OUTLINE OF THE THREE PAPERS

Paper 1: Micro role transitions between occupations

The first study explores the micro role transitions from one occupational role to another. A role transition is defined as, “the psychological (and, where relevant, physical) movement between roles, including disengagement from one role (role exit) and engagement in another (role entry; Burr, 1972; Richter, 1984) (Ashforth et al, 2000: 472). The study is guided by the research question of why individuals with highly segmented occupational roles do or do not have difficulty crossing role boundaries and when they experience those difficulties.

Paper 2: Role boundary permeability theory

The same interview data from paper 1 were used in the second paper, the purpose of which was to look at the types of boundaries individuals create between their two different occupational roles. The practical question that this study addressed was, how much do individuals really want to tell their co-workers about their personal lives and views? This study examines the types of boundaries individuals construct around their domains and what factors are considered when they construct those boundaries. The interview data were analyzed to create propositions about the types of role boundaries individuals create around each of their occupational domains. The research question was, "when and why do individuals create permeable or impermeable boundaries around their work domains?" The findings highlight five different areas of consideration: role

competence, role credibility, role focus, multiple-job holding norms, and role compatibility.

Paper 3: Virtual Integration and Segmentation

The purpose of the third study is to extend Ashforth et al's (2000) conceptualization of the integration-segmentation continuum by considering the virtual domain. The focus of the integration-segmentation continuum was on the multiple role identities of individuals and how they combined or separated the roles in their minds. Since cyberspace cannot be *completely* divorced from the physical world reality, how individuals shape their virtual domains is at least partly inspired by principles from the physical world (Gunkel & Gunkel, 1997), as interpreted by individuals. I address the question of when and why professors create virtual environments that are similar or different from their physical environments.

Together, these three papers contribute to the current literature on boundary theory by answering questions about the difficulty of making transitions and why and when individuals create various types of boundaries around their occupational domains. The first two papers focus on individuals who maintain two different occupational roles while the third paper focuses on professors who teach both online and traditional courses. On a practical level, the findings are expected to be helpful to individuals who have multiple occupational roles, create appropriate boundaries around their occupational domains by systematically thinking about different variables that are related to the self, the structure of their domains, and the relationship between their multiple roles. Future research can

extend these papers by focusing on how one creates different types of boundaries in virtual and physical spaces or how impression management is enacted in each domain.

PAPER 1: MICRO-ROLE TRANSITIONS BETWEEN OCCUPATIONS

ABSTRACT

The current literature on boundaries and boundary work focuses on the home to work transition (e.g. Rothbard et al, 2005; Nippert-Eng, 1996;). In this study, I focus on people with two simultaneous occupations and use a combination of qualitative and quantitative methods to elaborate on Ashforth, Kreiner and Fugate's (2000) article on micro-role transitions. The surprising finding is that some individuals with very different occupational roles do not have difficulties making micro-role transitions. I create a variance model that addresses the question of why individuals with highly segmented occupational roles do or do not have difficulty crossing role boundaries and, if they do, when they experience those difficulties. First, I elaborate on the meaning of role segmentation in a multiple occupation context. From there, I use quantitative data to see if there is an overall relationship between the degree of role segmentation and difficulty in making role transitions to address Ashforth et al's (2000) prediction that role identification might moderate the difficulty of the transitions. Then, I look at the people who defy the expectation that they should have difficulties making transitions to find out why they were able to make easy transitions. Finally, I systematically analyze the data by deconstructing the micro role transition process into two main parts (role exit and role entry) to find where (and when) the difficulties occur. I find that the salience of symbolic cues, time/experience in the domain one is entering, and switching skills helped the informants make easy transitions while role engagement in the domain one is exiting and

the anticipated role engagement in the domain one is entering made the transitions more difficult.

INTRODUCTION

New types of career models such as the protean career (Hall, 1976), portfolio career (Mallon, 1999; Cawsey, 1995), kaleidoscope career (Mainiero & Sullivan, 2005), changes in the organizational contract (Hall & Moss, 1998), and technological changes have enabled (or forced) individuals to create fluid careers, changing their occupational identities from one role to another. Changes in the psychological contract between employers and employees (Robinson & Rousseau, 1994) have created the new norm of changing occupational roles more often than before. Rather than staying in only one occupation in one organization in the traditional "organization man" career model (Whyte, 1956), individuals now have the freedom to change their occupational role identities over time. This process of transitioning from one occupational role to another becomes more complicated when individuals hold multiple occupational roles simultaneously and are required to make frequent role changes, termed "micro-role transitions" because the individuals are enacting "the psychological and (if relevant) physical movement between simultaneously held roles" (Ashforth, 2001: 7).

The focus of this study is a group of 30 individuals, who hold multiple jobs in two different occupations. Their experiences highlight the tensions that people experience making micro role transitions because their transitions are not as common as the typical work to home or home to work transitions that are usually the focus of studies on boundary work (Nippert-Eng, 1996; Rothbard, Phillips, & Dumas, 2005) and micro role transitions (Ashforth et al, 2000; Hall & Richter, 1988). The experiences of the

individuals in this study are therefore not taken for granted and informants were able to reflect on their experiences clearly because they knew that their maintenance of two different occupations was not a typical practice and were able to address the uniqueness of their experiences during their interviews.

In a theoretical paper on micro role transitions, Ashforth et al (2000) presented the proposition: *the greater the role segmentation, the more difficult it tends to be to cross the role boundaries*. This is based on the idea that the contexts and role sets of each domain are mutually exclusive and might even be antithetical (Ashforth et al, 2000). Every transition involves a psychological shift and a physical movement between the two domains (Hall & Richter, 1988). It is the psychological and physical distance between the domains that make it difficult to transition from one domain to the other. For example, an individual who is a doctor by day and a musician by night has *highly segmented roles* because he/she does not engage in both roles simultaneously at any given time or place (i.e. the boundaries are inflexible) and it is very unlikely that the individual will experience cross-role interruptions (i.e. the boundaries are impermeable), such as being asked to play music while enacting the doctor role or vice versa.

Starting with the general theoretical framework of role theory and then focusing on boundary theory (Zerubavel, 1991) and boundary work (Nippert-Eng, 1996) as a more specific framework, I focus on the micro role transitions (Ashforth et al, 2000) that people with segmented occupational roles make between their occupations. The purpose of this study is to answer the question of **why** individuals with segmented roles do or do not have difficulty crossing role boundaries and **when** they do or do not experience

difficulties. Using quantitative and qualitative methods, I elaborate on Ashforth et al's (2000) theory using analytic induction (Vaughan, 1996), induce a model, and create hypotheses for future research (Auerbach & Silverstein, 2003).

LITERATURE REVIEW

Theoretical Framework (Role Theory)

Role theory starts from the proposition, "All the world's a stage" (Sarbin, 1984: 24; Shakespeare, 1623, 1890). Goffman's (1959) seminal work, "The Presentation of Self in Everyday Life" was meant to be "a sort of handbook detailing one sociological perspective from which social life can be studied, especially the kind of social life that is organized within the physical confines of a building or plant" (Goffman, 1959: xi). In Goffman's use of the dramaturgical perspective, the assumption was that individuals were playing roles in social life, much like the way actors play roles on a stage. Rather than treating individuals as "passive reactors to situations defined by social structural properties" (Sarbin, 1984: 24) as Linton's (1936) anthropological work assumed, role theory gives more agency to individuals, whose actions are still constrained by the social structure and expectations of others, but at the same time, have agency in terms of *how* they perform each role. Individuals have the autonomy to act within the constraints of each role they choose to enact and the ability to choose which roles they would like to enact.

To be clear, the ***dramaturgical approach*** treats the stage as a metaphor and is different from the ***dramatism approach*** (Lyman & Scott, 1975; Burke, 1945), which treats the world as a literal theatre and not just a metaphorical one. The difference can be

explained by the ontological assumptions and the level of analysis that each approach takes. As an example, one could enact a role dramatistically as a professor within the strict confines of a classroom or dramaturgically *as if* one were a professor. The difference is that the individual acting dramatistically is not merely trying to create a front or engage in impression management as the individual who is acting dramaturgically because the assumption is that individuals merely react to their surroundings in terms of language and behavior (Burke, 1989). Examples of the dramatism approach might be found in rituals and the institutionalized support that social arrangements (e.g. the professor's role as a lecturer within a university) have in social life. If the lecture itself is conceptualized as a ceremonial act or theatre, the professor has a very specific role in the lecture and performs the ceremony of giving a lecture at specific times each week. The focus seems to be at a higher level of analysis (i.e. group, organizational, or societal), in which individuals conform to institutionalized practices and the ontological perspective is top-down in that action is attributed to structural characteristics (Hollis, 1994).

The dramaturgical focus is on impression management and validating one's role in the presence of others with dialectical and rhetorical acts. The "performance" is defined as "all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers" (Goffman, 1959: 22). This perspective can be characterized as a combination of top-down and bottom-up approaches because the actor is both constrained by the structure and free to enact the role as he/she wishes within those constraints. The

bottom-up approach opens up the possibility that structure can be either altered or created by action. The level of analysis is at the individual level and the focus is on the performances in which one employs interactional strategies to maximize gains and to minimize losses" (Sarbin, 1984: 25) and the psychological processes that enable individuals to enact and transition between their multiple roles.

Multiple roles

Van de Vliert (1984) described three types of multiple role relationships: (1) a single position with multiple role senders, (2) multiple positions, and (3) successive positions. The term, "position" is used to denote a structural role (e.g. priest) while "role senders" are the individuals with whom the individuals in the focal position interact. For example, the priest might interact with other priests and parishioners. Intra-role transitions are experienced by the individual in the first type (single position, multiple role senders). Intra-role conflict (Kahn et al, 1964; Gross et al, 1958) is experienced when there are contradictory role expectations from different role senders for an individual in a single position. Inter-role transitions are made by individuals who have multiple positions and inter-role conflict (Van de Vliert, 1984) is experienced by those individuals when it is difficult to conform to role expectations of both roles. This is different from intra-role conflict because the conflicting role expectations are not just from the role senders of one role, but rather, from the role senders of two (or more) different roles. Furthermore, role alternations (Van de Vliert, 1984: 9) are made by individuals with successive positions (e.g. employee and parent). Van de Vliert (1984) distinguishes alternations from transitions in the same way that Ashforth et al (2000) distinguish between micro role

transitions and macro role transitions. For the purposes of this study, the term, "micro role transitions" will be used to denote role alternations.

"Role" versus "Position"

Roles are defined here as the institutionalized positions within a given social structure (Ashforth, 2001). Katz and Kahn (1966) have similarly conceptualized the term, "role" as, "the building block of social systems and the summation of the requirements with which the system confronts the individual member" (Katz & Kahn, 1966: 171; Linton, 1936). Similarly, Louis (1980) used the definition of a role, "the task and other behaviors associated with a position in an organization or social system" (Louis, 1980: 330). Even though Louis (1980) did not use the word, "requirements," the role requirements are important in defining the term, "role," because (1) the requirements are observable aspects of the role that researchers can use to differentiate one role from another and (2) the institutionalized aspect of a role implies that the individual is fitting into a pre-determined role and not engaging in creating a role.

In Merton's (1957) terminology, a social status is an occupational position (e.g. doctor), which might include many roles (i.e. colleague, healer, mentor to residents). For instance, the social status of a university professor might include the roles of teacher and researcher and for each role, there is a different **role-set**. When the professor is teaching, the role set is the group of students he/she is teaching and when the professor is doing research, the role set might be co-authors or interviewees. Merton (Ibid) made the distinction between status and role because his focus was on the social structure and the expectations of the role set on the individual (and not the focal individual). The point of

his work was to look at the relationship between social mechanisms and conflicts that arise due to conflicting role- expectations of role-set members. For example, a public school teacher might experience conflicting expectations if parents expect personal attention for their children while the principle expects the teacher to manage an over-crowded classroom.

For this paper, the focus is on people who maintain two different occupational positions. Since Ashforth et al (2000) used the term "role" to include the position and requirements of the position, I will also use this definition of "role". This is a simpler approach than Merton's (1957) terminology but appropriate for this study because the focus is on the individual's experience moving from enacting one occupational role to enacting a second occupational role and not on the different sub-roles within each occupational position. The different occupational titles will be determined by the Dictionary of Occupational Titles and I will use the term, "occupational role" to refer to the occupational role title and the requirements of that role. The role set for each occupation is assumed to include everyone with whom they interact as part of the requirements for each occupational position.

Boundary Theory

The theoretical framework that is used in extant work on micro role transitions and in this study as a foundation for theorizing is boundary theory (Zerubavel, 1991; Nippert-Eng, 1995). The basic idea is that we create "mental fences" (Zerubavel, 1991: 2) to define one thing as being separate from everything else in time and space. This perspective is made

clearer in Goffman's parameters for his work on impression management when he specifies that his focus is on "the kind of social life that is organized within the physical confines of a building or plant" (Goffman, 1959: xi). For Goffman, the boundary is literal in the sense that it is a physical one. For instance, an office building can be considered the stage for playing one's role as a manager for a specific company. A less literal boundary might be the mental temporal fence around childhood and adulthood. The gap between those two stages of life might be dramatized with a rite of passage such as a bar mitzvah or a debutante ball. Similarly, military basic training is a way of separating the civilians from the soldiers in both time and space. Boot camp takes place on a military base that is specifically constructed for that purpose and the training time separates the soldier's previous civilian life from military life. In this case, there is a mental fence around one's civilian role and one's military role.

In the context of micro role transitions, boundary crossings are made on a daily basis between roles, whether they are occupational, familial, or other types of roles. The focus of this paper is on occupational roles in terms of inter-role transitions. This context is novel for boundary theory because in the past, it was very unusual for individuals to have more than one occupational role. The home-work context was typically the context for work on inter-role transitions. A **role boundary** is, "whatever delimits the perimeter - and thereby the scope - of a role" (Ashforth, 2000: 474).

Role boundaries can be conceptualized as being structure-dominant or agent-dominant. In the former, the assumption is that the role requirements were not created by the worker

but are structural requirements that the individual needs to fit into. A job crafting perspective (Wrzesniewski & Dutton, 2001) is an example of an agency-dominant view, which gives the individual the autonomy to shape the role. Job crafting, which is defined as "the physical and cognitive changes individuals make in the task or relational boundaries of their work" (ibid: 179) is usually discussed in the context of individuals creating their work identities for one occupational role. For the purposes of this dissertation, Goffman's structure-dominant perspective, which says, "When an actor takes on an established social role, usually he finds that a particular front has already been established for it" (Goffman, 1959: 27), is more appropriate because the focus of this study is about how individuals adjust when they are moving between their two roles. If this study were about how individuals integrate their roles or expand their role boundaries, then the agent-dominant job crafting perspective might be more useful. In the structure-dominant perspective, individuals can choose which roles they want to enact, but once that choice has been made, structural and institutional forces make it necessary for individuals to adjust their performances to fit into their role identities.

Role identities, which give the individual a general framework of a persona that he/she needs to enact while occupying the role, are defined as "socially constructed definitions of self-in-role (that is who a role occupant is), consisting of core or central features and peripheral features" (Ashforth et al, 2000: 475). The core features are the important, typical, and necessary characteristics of the role identity and help to anchor the individual in the role. These features typically include goals, values, beliefs, norms, interactions

styles, and time horizons that are typically associated with the role (Ashforth, 2001: 6). Depending on the role type, the emphasized core features will vary. For example, religious member identity roles will emphasize beliefs and values whereas occupational identity roles will emphasize work tasks, which presumably lead to occupational goals (e.g. doctors perform certain tasks to heal people).

An ***occupational role identity*** is a specific type of role identity, which is mainly made up of the skills used and the work activities performed by the people who hold the occupational role. For example, doctors generally have and use skills to coordinate data (e.g. making diagnoses using their knowledge of human anatomy and physiology), mentor people (i.e. either residents or their patients), and do precision work with things (e.g. scalpels, stethoscopes, etc.). They can learn these skills through formal training and/ or socialization. The peripheral features would include the negotiated parts that people holding the role might enact. For instance, a group of doctors with the same skills and work activities (i.e. core features) might have different peripheral features (e.g. each doctor might have a different "bedside manner").

This is in line with the definition of ***occupational identity***, which is the "set of central, distinctive, and enduring characteristics that typify the line of work" (Ashforth & Kreiner, 1999: 417; Van Maanen & Barley, 1984; cf., Albert & Whetton, 1985). Occupational role boundaries demarcate "what activities belong to the role and what belongs to other roles" (Ashforth, 2001:6) and an occupational role identity is bound by the job description or what skills are required and tasks to be accomplished an individual occupying that role. For instance, in any organization, the administrative assistant has an

occupational role boundary that is demarcated (an individual may not agree to it or like it but feel constrained by it) by his/her job description. Therefore, the ***occupational role identity*** can be also be defined as the set of central, distinctive, and enduring work activities and skills used that typify the line of work. In this paper, the focus is on individuals who maintain more than one occupational role identity and their experiences in moving between those role identities.

Work Role Transitions

The current literature on work role transitions can be traced back to several starting points. First, Louis' (1980) work on career transitions marked the start of the theorizing on role transitions by focusing on how the differences in roles can influence the difficulty with which one might experience role transitions. With boundary theory as the theoretical framework, the transitions between roles has been conceptualized as a boundary crossing, which have in turn been subdivided and classified into types of boundaries. For instance, Schein's (1971) three organizational boundaries are (1) functional, (2) hierarchical, and (3) network boundaries. After Louis' (1980) work on career transitions, subsequent work on transitions included theoretical papers on various types of transitions. Nicholson's (1984) theory of work role transitions was focused on the outcomes of the transitions, as opposed to the transitions themselves. It is also notable that most of the work on boundary crossings have been about transitioning from one role to another permanently and not temporarily.

Louis' (1980) theorizing about career transitions was mainly about the difficulties experienced during transitions as a result of differences in role identities. The ideas of

change and contrast were distinguished by whether or not the differences were objective differences that could be known in advance (i.e. ex ante) or subjective differences that could only be perceived after the fact (i.e. ex post). Changes were the ex ante differences and contrasts were the ex post differences. Contrasts were subjective in the sense that they were person-specific. The distinction between change and contrast is related to the core and peripheral features of an occupational role identity because the core features are those that can be objectively predicted (i.e. changes) while the peripheral features are person-specific and subjective (i.e. contrasts). The changes in occupational role identities are important because they give the researcher a way to objectively measure the structural and formal differences between two occupational roles. However, as Louis (1980) highlighted, contrasts can emerge from both the objective and subjective differences, as perceived by the individual.

Macro versus Micro Role Transitions

The literature on transitions can be sub-divided into macro role and micro role transitions. The former type is associated with the act of leaving one role and entering another role permanently. For instance, when an individual leaves one job or occupation and enters another job or occupation, this can be described as a macro role transition (e.g. Ibarra & Barbulescu, 2010). When an individual maintains two roles simultaneously, he/she needs to switch back and forth from one role to another. This has been referred to as a micro role transition (e.g. Ashforth et al, 2000). The focus of this dissertation will be to extend Ashforth et al's (2000) work on the difficulties of making micro role transitions, with a

focus on (1) individuals who maintain at least two occupational roles and (2) individuals who make physical to virtual micro role transitions within one specific occupational role.

Formally, role transitions have been defined as the "psychological (and where relevant, physical) movement between roles, including disengagement from one role (role exit) and engagement in another (role entry; Burr, 1972; Richter, 1984)" (Ashforth et al, 2000: 472). Micro role transitions are the "frequent and usually recurring transitions, such as the commute between home and work" (Ashforth et al, 2000: 472) and macro role transitions are the "passages between sequentially held organizational, occupational, or professional roles" (Ibarra & Barbulescu, 2010: 136; Louis, 1980). Macro role transitions are beyond the scope of this paper but there are similarities in the difficulties that individuals face when they make macro and micro role transitions.

One of the differences between the two types of transitions is in the time that it takes to make the transition and the frequency of transition. Macro role transitions (e.g. changing occupational roles) can take more than a day to make if one needs to undergo training for the new role or there is a period of unemployment. The entire time that one spends between leaving one occupational role and entering the next occupational role is considered one macro role transition and it happens relatively less frequently than micro role transitions. The time it takes to make each micro role transition is also relatively shorter than the time it takes to make a macro role transition. Hall & Richter (1988) outlined three different transition styles: the lagged, discrete, and anticipatory styles. The difference between each style is based on whether the the individual arrives at the second role physically and psychologically at the same time. If so, the individual has a discrete

style. If the individual arrives psychologically before arriving physically, he/she has an anticipatory style. Conversely, if the individual arrives physically and needs time to psychologically engage in the role, he/she has a lagged style.

Another difference can be found in the differentiation between the terms, "position" and "role". In Merton's (1957) definitions, a role is hierarchically lower than a position, which is a formal role. For example, one could have the position (formal role) of medical doctor. However, within that position, one has various roles in relation to different role senders. For a patient, the medical doctor is someone who renders the service of healing. For other doctors, the same medical doctor is a colleague, boss, or subordinate.

Insert Table 1.1 here

Micro role transitions (Ashforth et al, 2000; Hall & Richter, 1988) are the focus of this dissertation. The typical context of studies that theorize about these types of transitions are the home versus work context and the theoretical framework is typically boundary theory (Zerubavel, 1991; Nippert-Eng, 1995, 1996; Rothbard, Phillips, & Dumas, 2005). Goffman's (1959) dramaturgical approach is the foundational lens for boundary theory because boundary theory also assumes that individuals play various roles that are bound within spaces or domains.

Segmentation and role identity differences (change and contrast)

Segmentation can be thought of as a mindset that individuals have when they separate their different worlds into rigidly bounded territories that cannot be integrated in time or space (Nippert-Eng, 1996). For example, the integration of work and personal life might be manifested in workers displaying pictures of their families on their work space or taking work home (Nippert-Eng, 1995). Temporally, reminders and artifacts from the other domain seep into one's consciousness and create an overlap between the two worlds in one's mind. However, this can only be determined from the individual's perspective and does not capture the role identity contrast dimension that Ashforth et al (2000, 2001) predicted to be the underlying challenge of having segmented roles. For Ashforth et al (2000), role contrast seems to be defined as the difference in role identities. The magnitude of transition due to the necessity of crossing multiple boundaries (e.g. social, temporal, physical, etc.) means that it takes more psychological effort for an individual to make transitions between highly segmented roles. Therefore, large contrasts in role identities are associated with inflexible and impermeable boundaries. In other words, it is predicted that, the more different two roles are, the more likely the boundary between the roles will be inflexible and impermeable (Ashforth et al, 2000).

However, contrast can be due to both objective and subjective differences between roles. The subjective differences are from the individual's perspective in whether he/she thinks that the objective differences are important differences. For instance, two people could be making a macro role transition between leaving Bentley's MBA program and entering the same accounting firm (e.g. PWC). One individual might notice the

organizational culture as being significantly different from Bentley's while the second individual might find the work load to be a more salient difference. Objectively, the changes (e.g. job title, organization, co-workers, etc.) would be the same but subjectively, the contrast between the organizations will be different for each person.

Coser (1991) highlights the idea that role segmentation is a learned skill that involves understanding interpersonal relationships and that social roles are constantly being negotiated, as opposed to being taken-for-granted because one's role is always in relation to others. For instance, if one is a parent, there must be children. Similarly, if one is a leader, there are followers. In both cases, the individual must learn how to play one's role in relation to the members of the *role-set*, which is defined as the "complement of role-relationships in which persons are involved by virtue of occupying a particular social status" (Merton, 1957: 110). This suggests that segmentation is not just about the individual's task-related skills such as a teacher's ability to write on the blackboard or a computer programmer's coding skills. An individual's position within a social structure helps to guide behavior of the individual and of others in the role set, especially if the individual is not known to others (Coser, 1991). For instance, in the military, where the social structure is very clearly marked with one's rank on one's uniform, enlisted members know that they ought to salute officers as a mark of respect. As the Manual of Military Training states, "the salute is rendered as a mark of respect to the rank, the position that the officer holds, to the authority with which he is vested." (Moss, 1917:1124). The role-set can be a subjective difference that cannot be known in advance and would therefore be considered a contrast, as opposed to a change.

Micro role transitions - ease and difficulty

When Ashforth et al (2000, 2001) link difficulty with the psychological and physical changes that need to occur when moving from one role to the other, the emphasis of the difficulty seems to be in the psychological changes that need to be actively *induced* within the individual and less on the physical changes, which seem to facilitate the psychological changes but were not the focus of the difficulty. In other words, *the difficulty in making the transition is really focused on the concept of making a cognitive gear shift (i.e. changing one's mode of thinking from automatic processing to active thinking)* (Louis & Sutton, 1991). In the movement (rites of transition) period between role exit from role 1 and role entry into role 2, the preparation for the role entry is predicted to involve a combination of attention and arousal (either an increase or decrease). The commute itself or the physical act of changing one's clothing, are physical rites of transition that facilitate the psychological preparation for entering the second role.

Hall & Richter's (1988) findings in their work on the transitions between home and work, seemed to suggest that the transition styles are contextual and not innate. They found that individuals tend to start thinking about work before they leave their homes in the morning and do not start thinking about home until they leave their work places in the evening. It is not clear if the difference in transition style tendency is due to the home versus work context, time of day, or other variables. As Hall & Richter (1988: 214) point out, "Most people are sensitive about their personal lives and the complex feelings, relationships, and problems associated with their family relationship". By removing the

family relationships from the context, it might be possible to determine other variables that have an effect on which transition style each individual experiences. Also, as Goffman, (1959: 27) noted, "When an actor takes on an established social role, usually he finds that a particular front has already been established for it". A "front" is where an individual is performing for members of a role set and cannot let his/her guard down. By focusing on the transition between two occupational roles, the individual is moving from one front region to another, as opposed to moving from a back region (home) to a front region (work). In the next sections of this literature review, I will review the extant work on multiple occupational roles.

Multiple occupational roles

Most of the work on micro role transitions has typically focused on the work-home transition in the work-life balance literature (e.g. Hall & Richter, 1988; Louis & Sutton, 1991). However, there has been some work on specific combinations of occupations. For example, Peters' (2013) study of journalists who work as media coordinators, found that all of the journalists in his sample employed a segmentation strategy in maintaining their two roles and considered themselves to be journalists first and coordinators second. Furthermore, the journalist/media coordinators seemed to benefit from their dual-role status in terms of status enhancement (e.g., by being around powerful people as media coordinators), education (i.e. being able to see how the institution works), increased status security (i.e. in terms of one role possibly being a buffer for the other), and increased role privileges (e.g. not having to go through security in some places).

Peters' (2013) study was focused on only one multiple occupational role combination, with the coordinator position enhancing one's journalist position. The individuals in the first context of this dissertation have various degrees of difference between their occupational roles and in many cases, the roles are not as similar as the journalist - coordinator combination.

In this paper, I will be looking at different occupational role combinations and exploring how the difference in occupational roles might affect the micro role transition process. By looking at different occupational role combinations, it will be possible to find commonalities in the micro role transition process that can be more likely attributable to the transition process than a specific combination of occupational roles. In other words, while Peters' (2013) study was very informative in showing us what journalist/media coordinators experienced, it is not clear how much of the findings are specific to journalist/media coordinators. If there are commonalities and patterns found in a sample of individuals with different combinations of occupational roles, it will be possible to focus on the phenomenon (e.g. the role transition process or other experience) itself. This is similar to the approach that Louis (1980) took with her work on work role transitions. Her argument was that specific transitions were studied previously but the work transitions per se were not studied. In this study, the first context is an attempt to look at the micro role transition experiences, per se, of people with different multiple occupational roles and not just at the micro role transitions of one combination of occupational roles.

METHODS

The main data gathering technique for this study was a series of 30 semi-structured interviews, which involved interviewing people who either had dual simultaneous occupations in the past or who were currently maintaining dual simultaneous occupations. After receiving a response from a possible informant, I clarified whether they were indeed financially compensated for both occupations and that the occupations were in different categories, according to the classification system of D.O.T. (Dictionary of Occupational Titles) codes. If the answer was in the affirmative for both criteria, we set up a time to do the interview, either in person or by phone. For the data analysis, I used a combination of quantitative and qualitative data first to show the need for theory elaboration. Then, I used qualitative data to create a model to elaborate the theory and created corresponding hypotheses for future research.

Sample

The sample gathered for this study was ideal because it was unique in two ways. First, it was unique in the sense that the current literature on micro-role transitions (e.g., Ashforth et al, 2000; Rothbard et al, 2005) usually focus on the context of work life versus home life as the context for looking at segmented roles. In this study, the segmentation context is in the difference between two different occupational roles that the individuals hold simultaneously. This context is ideal for this study because both roles are institutionalized occupational roles whereas the home role in previous studies is not as institutionalized as an organizational role (i.e., the role of a mother in a specific family is not as replaceable or interchangeable as an organizational role). By studying people transitioning between

two different institutionalized occupational roles, it is possible to create a more consistent and detailed picture of the entire transition process (both role exit and role entry). A total of 30 individuals were interviewed for this study.

Interview Protocol

Each interview lasted approximately an hour, ranging between 45 minutes to 2 hours. The interviews were semi-structured and followed a thorough interview protocol. Follow-up questions were added if informants introduced interesting themes. For example, after the first five interviews were conducted, an additional question about how many hours each informant spent at each occupation was added because that data could potentially show that the difference in compensation and time spent in each occupation did not necessarily make sense from an economic point of view. In other words, it could show clearly that the informants were not doing the second occupation for the money. The other two follow-up questions that were added were:

1) Do you tell people you know in occupation 1 that you have occupation 2 and vice versa? If not, why not? and

2) What do you think is the difference between an occupation and a hobby?

The first follow-up question was to determine whether informants made a conscious decision to keep their domains separate. The second follow-up question was to find out how informants perceived their second occupations as being different from amateurs or hobbyists. This question arose after a couple of informants said something to the effect of, “it’s not like I’m doing this [the second occupation] as a hobby”. This

question helped to differentiate the practice of holding a second occupation from the practice of engaging in "serious leisure" (Stebbins, 1982).

All interviews were recorded using a portable digital recorder. For phone interviews, I either used an in-ear microphone or put the phone on speaker phone to record the interviews. All audio files were transcribed using Hyper Transcribe software. The transcriptions were then imported into Hyper Research software for coding and analysis. Each informant was given a pseudonym to hide their identities in the transcriptions. The first wave of data collection took place between April 2009 and September 2009. The second wave of data collection took place between January 2012 and March 2014. A total of 696 pages of data were transcribed from 30 interviews. Theoretical saturation (Glaser & Strauss, 1967) was reached at around 21 interviews, when no new insights were added to the data that had already been collected.

Data Analysis

The purpose of this study was to elaborate Ashforth et al's (2001) theory, create a model, and develop hypotheses about why and when people with segmented roles experienced difficulty (or not) during micro-role transitions. Analytic induction is the process of looking at the instances in which a phenomenon occurs and finding the conditions which accompany that phenomenon (and the conditions or circumstances in which it does not occur) (Robinson, 1951; Vaughan, 1996). By looking at individuals with segmented roles who did not have difficulties making micro role transitions, it was possible to refine the current theory because by treating each individual as a "case," one can iteratively find the

conditions under which micro role transitions were either easier or more difficult. Following an iterative process (Glaser and Strauss, 1967) of looking at emergent themes in the data, noting them, and probing further about those themes in subsequent interviews, I was able to create hypotheses for future research (Auerbach & Silverstein, 2003). The added follow-up questions were an example of the iterative process in which I probed further about an emerging theme (i.e. what made transitions easy or difficult).

Before creating the model and hypotheses, I used numerical data with some interview data to demonstrate the need for theory elaboration. Quantitative data included age, income levels, hours worked per week, passion ratings (from the answer to the question, "On a scale from 1 to 100, how passionate are you about each occupation?"), and occupational identity scores (from the answer to the question, "Divide 100 points among your various occupations. Give more points to occupations that are more central/ important to who you are - in other words, to how you see yourself."). I also looked up D.O.T. (dictionary of occupational titles) codes to measure the degree of segmentation between occupational roles. Table 1.2 summarizes the demographic and occupational statistics for the sample.

Insert Table 1.2 about here

By asking informants how they would divide a hundred points between their two occupations, I was able to estimate the relative role identification ("Diff ID" in Table 1.2) for each informant. Additionally, I calculated the relative difference in passion scores ("Diff P" in Table 1.2) to show how relatively psychologically immersed they were in

each occupation. These scores will be used to show that the current proposition about role segmentation leading to greater difficulty in crossing role boundaries is incomplete and needs further elaboration.

Role segmentation as measured by three methods

Three measures were used to quantitatively calculate the difference between each individual's occupational roles. D.O.T. codes, Holland codes, and Complexity scores (Gottfredson & Holland, 1996) were found for each occupational role that was mentioned by the participants in this study. The purpose of using all three measures was to look for similarities and differences between the measures. The D.O.T. codes and the complexity scores were used to measure the difference in role complexity while the Holland codes were used to calculate a difference in occupational environment scores.

D.O.T. codes

Because the definition of occupational role identity is the set of central, distinctive, and enduring work activities and skills used that typify the line of work, occupational role identity contrast can be measured and calculated by comparing the descriptions of two occupations. To facilitate this computation, the D.O.T. coding system will be used. Within the D.O.T. (Dictionary of Occupational Titles) codes, the 4th, 5th, and 6th digits represent the worker's relationship to data, people, and things, respectively (http://www.occupationalinfo.org/front_223.html). The numbers assigned for each of the categories (data, people, and things) go from most to least complex. Lower values represent more complexity in responsibility and judgement while higher values represent less complexity (e.g. synthesizing is rated 0 while taking instructions/helping is rated 8 in

the data category) in each category. Appendix 1A shows the coding schema for the middle three digits. For example, a musician's middle three digits are 041, meaning that they synthesize data, divert people, and require precision working with things.

Because role boundaries "facilitate the articulation of a role identity by circumscribing the domain of the role - by demarcating what activities belong to the role and what belongs to other roles" (Ashforth, 2001: 6), the difference in D.O.T. codes serve as an appropriate proxy for role contrast because each code demarcates how complex the occupation is, in terms of what the person occupying the role does with data, people, and things. Since role identity contrast is defined as "the number of core and peripheral features that differ between the identities and the extent of the differences where core features are weighted more heavily" (Ashforth, 2001: 264), one could argue that the core features of an occupational role identity are the basic building blocks of the job description.

The contrast between two occupational roles can be calculated by taking the absolute value of the difference in each of the criteria and adding all three digits to create one overall contrast score. The equation for the occupational role identity contrast score is = Diff data digit + Diff people digit + Diff thing digit. Figure 1.1 shows a graph of the occupational role identity contrast scores for each informant.

Insert Figure 1.1 about here

Holland Codes and Complexity Scores

The role identity contrast score calculations were determined by using only D.O.T. codes. For comparison purposes, Holland Codes and Complexity scores from the Dictionary of Holland Occupational Codes (Gottfredson & Holland, 1996) were compiled for each occupational role. Holland Codes are combinations of 3 letters representing the top three environmental model types, according to the RIASEC model. The six environmental types are: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional (Holland, 1973). For example, the code for musician is ASC, meaning that the dominant environmental type is Artistic, followed by Social, and then Conventional. It is assumed that individuals with the corresponding personality type will prefer and do well in an environment with the corresponding name. For example, someone who has a Realistic personality type will thrive in a Realistic environment. Furthermore, the Hexagonal model (see figure 1.2) shows that the correlations between the six types. For instance, there is more similarity between the Realistic and Investigative types than between the Realistic and Social types.

Insert Figure 1.2 here

An individual's personality pattern is typically assessed using the Vocational Preference Inventory (VPI) scale (Holland, 1973). The result is a two to six letter code that represents the personality pattern of the individual. For example, one could have a RS (Realistic Social) pattern, which has oppositional values such as masculine (Realistic) versus feminine (Social). From the hexagon model, we can see that the combinations that

are furthest away from one another (i.e. RS, IE, AC, SR, EI, and CA) are going to be the least consistent. In Holland's (1973) terms, the opposing combinations would have a low level of consistency. The combinations with highest consistency would be the ones in which they are beside one another on the hexagon (e.g. RI). The combinations formed by one type in between would be combinations with middle consistency (e.g. RA).

Occupational roles can also be classified using Holland's hexagon model. The letters represent the occupational environment of each occupation. The assumption is that individuals with personalities that fit their occupational environments will thrive in those environments. For instance, a person with a Realistic personality type will do well in an occupation that is also coded as Realistic. In contrast, individuals with an Artistic personality type would not do well in a Conventional environment, which is an opposite point on Holland's Hexagon model. According to the Dictionary of Holland Occupational Codes, "No CA occupations are listed and very few occupations have both C and A appearing anywhere in the code" (Gottfredson & Holland, 1996: 721). For this study, the Holland code for each occupational role was found. For each individual, Holland's Hexagon model was used to find the number of steps between the first letter of each Holland code. For example, the purchaser/musician had the Holland codes, CES (purchaser) and ASC (musician). The first letters were C and A, which meant that there were 3 steps between A and C, translating to a low level of consistency between the two occupational roles. Conversely, an individual with two Holland codes with the same first level would have 0 steps and therefore a high level of consistency between their roles.

The Complexity score (Cx) is defined as, the "cognitive complexity of work demands" (Gottfredson & Holland, 1996:723) and does not include "items involving clerical perception and complexity of functioning with people" (Ibid, 723). The Cx scores were calculated by combining eight different standardized scores that measured aptitude in reasoning, mathematics, and language (Ibid). The Cx score goes beyond the sum of the 4th and 6th digits of the DOT code (i.e. complexity of data and things) and includes educational development and level of Specific Vocation Preparation (SVP). By taking the absolute difference of the Cx scores of two occupational roles, one could create a Cx Diff score to measure the difference between two occupational roles in terms of cognitive complexity.

The Dictionary of Holland Occupational Codes has a listing of DOT codes, their Holland code equivalents, and a Complexity score (Cx) for each occupation. For example, accountants have the DOT code, 160.162-018. The middle three digits (162) of the DOT code were used to calculate the role identity contrast score (DOT Diff). The Holland code for accountants is "CSI" and the Complexity score was 70. Then, the code and score differences (Holland Diff, DOT Diff, and Cx Diff) between each informant's two roles were calculated. When the absolute values of the DOT Diff and Cx Diff scores were graphed (see figure 1.3), the DOT Diff and Cx Diff scores seemed to be generally consistent in terms of relative difference (e.g. Joe had the highest score for both DOT Diff and Cx Diff). The inconsistencies can be explained by the fact that the Cx Diff scores do not include complexity of functioning with people, which is included in the DOT Diff score.

Insert Figure 1.3 here

Ease/Difficulty of transition

Hall and Richter (1988) found that individuals do not always "arrive" psychologically at the same time that they physically arrive at their work roles. Their three transaction styles illustrate that people can psychologically arrive before (anticipatory style), simultaneously with (discrete style), or after (lagged style) their physical arrival. In terms of difficulty, the discrete style is when there is no difficulty because the individual's internal (or psychological) entry matches the external (physical entry). Individuals are able to jump into the roles and enact their roles upon physical arrival. However, when the alignment is off (i.e. the physical and psychological entries are not aligned), the individuals might be experiencing difficult transitions.

To differentiate between an easy or difficult anticipated transition style, Ashforth et al (2000) suggest that the difficulties lie at the visceral level and in "switching cognitive gears" (Louis & Sutton, 1991:55). In other words, the difficulty is located in the emotional and cognitive realms. This is in line with the idea that transitions involve either heightened or lowered arousal (Ashforth et al, 2000). Some individuals need to psych themselves up while others need to calm themselves for the next role. When individuals do not make a full transition, role spillover occurs, with negative moods being more likely than positive moods to spillover into the second role from the first role (Williams & Alliger, 1994). Using Hall and Richter's (1988) transition styles, difficult transition styles which were either lagged or anticipatory (i.e., when the physical and psychological

arrivals did not align) were coded as difficult. Transitions were also coded as being difficult if the informants specifically set aside a specific time in between roles to switch cognitive gears (Louis & Sutton, 1991) because the fact that they required that time meant that they were not able to just dive into the second role.

The quotes from the informants describing their transitions from one occupation to the other were coded as being either "difficult" or "easy" according to the same criteria described in this section. In the interview protocol, the question, "how you make the transition from one occupation to the other?" evoked the descriptions. With the exception of "Mark" (nurse/real estate agent), the transitions were from their "day jobs" to their other jobs. Mark was able to respond to the transition into the nursing role (from home) but not from the nursing role to the real estate agent role because he never made the latter transition.

Most of the informants had either a lagged or anticipatory transition style, which meant that they did not make an in-the-moment switch from one role to another (i.e. discrete style). The in-the-moment transition was coded as an "easy" transition while the lagged and anticipatory styles were coded as difficult transitions. For many informants, it would seem as though they were moving from a more complex role to a less complex role, as measured by the Cx scores. It should be noted that the Cx Diff scores in figure 1.4 are calculated with the equation, Cx2-Cx1, meaning that positive scores indicate that the individual was transitioning from a less complex role to a more complex one and a negative scores indicate that they were transitioning from a more complex role to a less complex one. In figure 1.4, the informants were sorted from high Holland codes on the

left to low Holland codes on the right. High Holland codes indicate low consistency, which meant that the difference between environments was the highest. The circles represented individuals who reported difficult transitions while the triangles represented individuals who reported easy transitions. Figure 4 clearly shows that there were no distinct patterns that linked role complexity with ease/difficult of role transitions. Thus, it was necessary to examine and analyze the qualitative interview data to answer the research question.

Insert Figure 1.4 here

FINDINGS

To answer the research questions of **when** and **why** individuals with segmented roles have difficulty crossing boundaries**,** it was necessary to determine what it meant for people with highly segmented roles to experience difficulty making role transitions. Several informants reported that they had little or no difficulty making the transition between their highly segmented roles. According to Ashforth et al (2000, 2001), the "transition challenge in highly segmented roles lies in crossing the role boundaries: to psychologically (and where relevant, physically) exit one role and enter the other (Ashforth et al, 2000: 477). This begged the question of why some individuals were able to cross boundaries with ease when they theoretically should be having difficulties?

In this section, I begin by illustrating the relationship between role contrast and flexible/permeable boundaries using data from this study to elaborate on the idea of role segmentation. From there, I use both qualitative and quantitative data to see if there is an

overall relationship between the degree of role segmentation and difficulty in making role transitions to address Ashforth et al's (2000) prediction that role identification might moderate the difficulty of the transitions. Then, I look at the people who defy the expectation that they should have difficulties making transitions to find out why they were able to make easy transitions. Finally, I systematically analyzed the data by deconstructing the micro role transition process into two main parts (role exit and role entry) to find where (and when) the difficulties occurred and to find the constructs that form my model of why and when boundary crossings are difficult.

Role contrast and flexible/permeable boundaries

The proposition, "role contrast tends to be negatively associated with role flexibility and role permeability" (Ashforth et al, 2000: 476) implies that segmentation is associated with role segmentation because when the boundaries around both roles are inflexible and impermeable, that means that the roles are segmented (Nippert-Eng, 1996). The proposition is another way of saying that the more contrast there is between the two roles, the more likely the two roles will be segmented. The differences in D.O.T. codes, Complexity scores (Cx), and Holland codes numerically estimate the degree of role identity contrast between an individual's two occupational roles in terms of how complex their work is, in dealing with people, data, and things.

According to Figure 1.1, informants had varying degrees of role segmentation, according to the D.O.T. scores. Katrina had a contrast of 0 because the middle three digits of both of her D.O.T. codes were the same. The scores ranged from 0 (Katrina and Kara) to 18 (Joe) with a mean score of 6.87. ***It should be noted that the scores do not represent***

amounts but relative degrees of role contrast between informants. This means that Katrina and Kara had the least contrast between their two occupations (consultant & professor and professor & yoga instructor, respectively) whereas Joe had the highest contrast between his occupations (woodworker and music teacher). By extension, Katrina and Kara had the lowest degree of role segmentation while Joe had the highest, in their occupational roles.

The rationale for proposing a connection between boundary impermeability/ inflexibility and role contrast (Ashforth et al, 2001; Ashforth, 2000) is that the separation of the domains in which the roles are performed will have mental fences (Zerubavel, 1991) drawn around each role, due to processes such as institutionalization of boundaries around each domain and the tendency for role identities in separate domains to diverge over time as each role identity is affected by domain specific social pressures and evolves independently (Ashforth et al, 2000). With no bridges such as overlapping networks or events in which people from each domain could meet one another, the two domains are likely to remain separate. In addition to these factors, the data from this study indicated that individuals also make conscious decisions to keep their occupational domains separate. During the interviews, some informants spoke about ways in which they consciously kept their worlds separate in terms of not talking about the other occupation to their role sets (i.e., people with whom the informants interacted in each domain) in each occupation. However, even though they would not "advertise" to their co-workers that they had a second occupation, there were times when they experienced overlaps

between their two worlds. For example, Darlene said that her administrative role sometimes overlapped with her her musician role because she was working with musicians in both of her occupations. However, she also said that she was not able to make some musician-related phone calls during the day when she was performing her administrative role. Similarly, Alice was able to create some overlaps when she played the real estate role with some of her day job co-workers in the evening but she would not play the real estate role while during the day when she was physically at her financial manager role.

In short, the role contrast calculations provide a measure of role segmentation only in terms of the work roles and activities that occupational role holders enact. The reasons for maintaining the mental fences that each individual creates around each domain will depend on other factors besides the degree of role contrast. Alice, who had a low role contrast score said, “If someone asks me, I would tell them. But I don't willingly give out that information because I don't want people to think that, um, that that's gonna take away from what I do because it doesn't. But I could see that someone might think it would.” The reason for keeping her domains separate is not only because of institutional boundaries or wanting to keep each domain pure for the sake of purity, but also for purposes of impression management. Even though it would seem that being well rounded could be a positive attribute, informants did not think that it was socially safe or wise to talk about their other occupations in many work settings.

However, at the same time, Alice cites instances of applying skills learned from working as a financial analyst to her real estate occupation, “I'm big into Excel, just from

working at Company R, so I think that I can do a good timeline for them, and I update them, and I send them um, weekly updates on what's going on." In terms of skills, it was clearer as to which informants were able to integrate their roles in terms of using skills from one occupation in the other. Informant reports of these transferable skills seemed to qualitatively show the degree of segmentation in the sample and complement the role contrast scores. Delores, who had a role contrast score of only 4 reported that being an improvisational actress helped her be a better researcher. Joe, the informant who had the highest role contrast score, did not cite any similarities or applicability of skills between his woodworking and music instructor occupations. For this study, the degree of role segmentation is in terms of how separate the occupations are in terms of skills and activities used in each occupational role.

Role segmentation and difficult role transitions

The role contrast scores representing the degree of segmentation were compared to the difficulty of boundary crossing (see Table 1.3). While the difference between the D.O.T. codes is a rough measure that does not account for the multitude of ways that two roles can be segmented, it serves as a quantitative measure to highlight the relative occupational role difference between two occupations and to show that the differences in degree of segmentation were *not* the only reason for the variance in boundary crossing difficulty. Twenty of the informants experiencing transition difficulty had role contrast scores ranging from 0 to 18. The remaining ten informants reported no difficulty making transitions and their role contrast scores ranged from 3 to 11.

Insert Table 1.3 about here

The ease or difficulty of transition was determined by whether the psychological transition involved rites of passage that were more than a change of clothing. The conscious setting aside of time to make the transition is in line with the proposition, "The greater the role segmentation, the more likely that role transitions will be associated with rites of passage" (Ashforth et al, 2000: 479). Informants did not think of the change of clothing as being a way of easing any difficulty in their micro role transitions, but as something dictated by the role they were entering. However, the act of setting aside a certain amount of time between roles, mentally preparing for the second role while in the first role, or taking time after entering the second domain to mentally prepare, were signs of difficulty because they required active thinking and planning (as opposed to following a script) to make the transition.

A quick comparison of the degree of segmentation and the coded difficulty of crossing boundaries suggest that the difference in role segmentation does not fully explain the difficulty in crossing boundaries (see Table 1.3). There was no clear pattern or association between the degree of segmentation and transition difficulty. Corey (purchaser/musician) and Joselyn (accountant/water aerobics instructor) had above average role contrast scores and yet, they reported very little difficulty making role transitions. Conversely, Katrina (consultant/professor) and Kara (professor/yoga instructor) had the lowest role contrast scores and talked about having to mentally prepare to cross role boundaries for certain activities in their second occupations. These

preliminary findings raised the question of why some of the interview results seemed to indicate that the proposition that the higher the degree of role segmentation, the higher the difficulty in crossing role boundaries, is incomplete and requires further elaboration. The goal of this study is to explore the contingencies that moderate this proposition.

The importance of role identification

Ashforth et al (2000) predicted that the difficulty of role transitions depended on the strength of one's role identification because high role identification would mean that the individual be "far more likely to become psychologically and physically immersed in the experience of a role if there is an initial affinity for what the role entails" (Ashforth et al, 2000: 483). If this were the case, the relative passion (Diff P) scores (informants were asked to rate their passion for each occupation from 1 to 100) should be consistent with the Diff ID scores because the passion scores show how emotionally engaged they are with each occupation. However, figure 1.5 shows that this is not the case. Some informants thought of themselves as being equally passionate about both of their occupations and yet saw their role identities as having different levels of importance. Figure 1.5 shows the relative passion scores and relative role identification scores in relation to the ease or difficulty of transition. The triangles represent difficult transitions and the circles easy transitions. One would expect that an individual moving to a role that one identifies with and enjoys more would be easy and moving to a role that one identifies with less would be difficult. Thus, one would expect that the circles would have at least one positive x or y value and the triangles would have at least one negative x or y value on the graph. Even though the circles show a general pattern in the expected

direction, the triangles (representing difficult transitions) are more scattered, suggesting that difficulty of transitions are not only due to role identity and psychological immersion due to affinity for the role. The presence of outliers suggest that the assumption behind the proposition linking role identification and difficulty of role exit & ease of role entry needs clarification. In other words, if role identity does not explain the ease of role entry or difficulty of role exit, why else would people with segmented roles have ease or difficulty crossing role boundaries? To start addressing this puzzle, the qualitative data revealed some possible answers.

Insert Figure 1.5 here

Easy transitions

Several informants used analogies suggesting that they were able to "flip a switch" and instantly enter their second roles. However, the reasons that they were able to switch quickly were not always the same. The data showed that easy *role entries* were influenced by the time and skills the informant had in the role they were entering, skills learned from outside the occupation they were entering, or the affinity for the domain that they were entering. For clarity, "domain 1" is the physical location of where the informants were exiting and "domain 2" is the physical location they are entering (within one day). This can switch for some people, depending on which occupational role they occupy on any given day. The roles are psychologically based and can vary as to when the individual leaves the first role and enters the second role, in relation to the time he/she physically exits the domain.

Role exits varied in difficulty. To make the role transition smooth, it seemed that there had to be factors that made it easy for individuals to leave their first domains because the spillover literature suggests that it is sometimes possible for emotions and behaviors from one domain to carry over into other domains (Evans & Bartolome, 1984). However, Paul showed that it is possible for people to develop a "switching" skill within one occupation and apply that skill to their role transitions. As a doctor, he seemed to have developed the skill of being able to "flip and move quickly" and apply that skill to making transitions from his doctor role to his musician role on a regular basis. In his case, he learned the switching skill in his first domain and was able to apply it to the role exit part of the transition from the doctor role to musician role.

To further illustrate this switching skill, Sylvia (speech therapist/dancer) explained her ease with making transitions, "there were some places where I worked where I didn't want to tell them that I was coming from some place else and so you just learn to make the switch very quickly because you know as soon as you show up at the door of the hospital and you've just been dancing, they don't wanna hear a darn thing about the dancing. They just want you to be the speech pathologist so you just kinda learn for survival mode."

For Sylvia, it seemed that her ability to transition between her two roles was a combination of learning to make an abrupt transition (i.e. not mentioning her dancer role) into the speech pathologist role (through social sanctions in that role) and the strength of her dancer role identification. The fact that he dancer role identity was perceived as "natural" suggests that entering and exiting that role was routinized through experience.

This suggests that the ease of transition between roles can also be a result of a combination of variables.

The act of switching between occupational roles seems to be very similar to Molinsky's (2007) cross-cultural code-switching construct, which is defined as, "the act of purposefully modifying one's behavior in an interaction in a foreign setting in order to accommodate different cultural norms for appropriate behavior" (Molinsky, 2007: 624). The difference between the switching skill in this study's context and the cross-cultural code-switching construct is that the latter requires that there be a conflict in values between the two contexts one is switching between. In other words, the tension lies in the values and not just in the role expectations of the two role sets.

An example of cross-cultural code switching is when one switches from a culture in which bowing is a gesture of deference (e.g. the United States) to a culture in which bowing is a greeting (e.g. Japan). It might feel strange for an American to bow to a Japanese person, especially if there is a status difference or if the act of bowing has a particular significance to him/her. However, when an individual switches between two occupational roles, it often does not involve any conflict in values. The difficultly is merely in meeting the expectations of the two different role sets in enacting each role. For example, Lydia thought it was challenging to transition between her lawyer role to a music student role because as a lawyer, her job was to lead but as a music student, she had to restrain herself from "taking over". However, when she transitioned between her lawyer role and the band leader role, it was not as difficult because she was playing a leading role in both contexts. Thus, it was not necessarily the values that were in conflict,

but rather the specific behaviors and the awareness that she ought to be more deferential when she is playing the role of student.

Role entries - Two of the informants attributed similar but different reasons for the ease of their transitions from their first occupation to their second occupation. Joselyn was an accountant by day and water aerobics instructor by night. She said, "I mean I've been doing this for so long. I don't particularly prepare for a class because I can just do it off the top of my head depending on who's in there and who likes what, um, or what I need, you know." However, Paul (the doctor/musician), explained that the transition to the musician role was not an issue for him because he applied skills that he learned from being a doctor (i.e. his first domain), "Yeah, there's no time to do that, you just have to go. It's the same thing with medicine. I mean, when you're working in the hospital, you can have a patient that dies and two seconds later, you're in the next room dealing with something else. You have to be able to sort of flip and move quickly."

Even though both informants learned to "flip," the sources of their switching skills were different. This suggested that the transition or "switching skill" can be learned in two different ways. This expands on Ashforth et al's (2000) proposition, "*the more a role transition is repeated, the more automatic and less difficult the transition tends to become…*" because the transition skill is not necessarily learned from repeating the transition itself. In Joselyn's case, she learned to enter the role just by having been a water aerobics instructor for a long time and developing the skill to "do it off the top of [her] head". However, Paul learned to make quick transitions by making transitions within his first occupation on a regular basis. The informants were not merely learning to

make the transition by routinizing the transition itself. Rather, they were applying skills they learned from one of their occupations to transition from either the domain they were entering or from the other domain.

Deconstructing the micro role transition process

To look at the reasons affecting the difficulty of boundary crossings more systematically, the following codes related to the factors affecting the difficulty of boundary crossings emerged: switching skills, salience of symbolic cues, experience/skill in role 2, role engagement in domain 1, and anticipated role engagement in domain 2. To better focus on *where* the difficulties were, I created separate tables for the two main categories: factors affecting role exit (Table 1.4) and factors affecting role entry (Table 1.5). I analyze the role exits first because they happened first and then the role entries afterwards. This made it clear as to where (or when) the difficulties were for each informant.

Insert Table 1.4 about here

Insert Table 1.5 about here

Factors affecting the difficulty of role exits

After physically leaving the first occupation, informants had varying degrees of difficulty completely exiting their roles. In Table 1.4, the coding revealed that people either had easy transitions due to the salience of symbolic cues that helped them leave the first occupation quickly or difficult transitions because they were very psychologically

engaged in the first occupation and needed time calm themselves. Each of these factors will be illustrated below.

Salience of symbolic cues such as changing out of one's clothes or leaving an office building were ways that facilitated the complete exit from the first domain. This is in line with Rafaeli & Worline's (1999) assertion that symbols can influence behavior by eliciting internalized norms. Titus attributed the change of clothes to facilitate the psychological part of his micro role transition, "I think lots of different little things would sort of change my attitude in the right direction, like uh, if I go home, I mean just changing clothes, you can sort of like, kind of change your mood." For others, the the salience of symbolic cues were more dramatic, as in Arlene's account, "literally as soon as I walk out of the lobby of company R, I'm a different person. Everything just kinda - I leave everything there. You just have to leave it at the office." In both cases, the informants had physical objects that reminded them that they were about to leave their first domains.

Role engagement in the first domain, on the other hand, was something that hindered the informants' abilities to make clean role exits, in the sense that they experienced some kind of spillover (Evans & Bartolome, 1984). In other words, they were not able to personally disengage (Kahn, 199) from their roles or leave their first domains completely after physically leaving their first domains. For example, Didi said, "Sometimes at the company, I'm on the line - if I'm on the phone with some customer who's trying to, you know, talking tough, trying to talk down terms, and when somebody

starts talking tough, I'm right there with them." This made it necessary for her to leave work early sometimes to give herself the space between occupations to calm down.

Conversely, Carla was able to make a very easy role exit because in her words, "the day one [job] doesn't occupy my brain." She was not personally engaged in her role as an administrative assistant. In other words, she was not expressing her "preferred self" (Kahn, 1990: 700) in that role. For her, the role exit from her administrative role (day job) was simple but she often had difficulties exiting from her design role because she was personally engaged in that role. She said, "but um, design, it never shuts off when you're on a project. You're always - you're just always thinking. It's always on your mind." For several informants, it was more difficult to leave the role (e.g., musician) that had them personally engaged but fortunately, it was the second occupation during the day and there was no need to make a transition to the other occupation. However, for individuals like Didi and Igor, they had to specifically set aside a certain amount of time to let themselves calm down to allow themselves to start making the entrance into their next roles.

Factors affecting the difficulty of role entries

There were more variables that affected role entry than there were that affected role exit. In this section, I illustrate four variables that influenced the ease of role entries: switching skills, salience of symbolic cues, experience and skill in domain 2, and anticipated role engagement in domain 2 (see Table 1.5).

Salient symbolic cues included changes of clothing, walking out of the office, the start of a performance, and walking through a certain area. Even though the change in

clothing could be interpreted as a role exit, the process can be deconstructed into the removal of domain 1 clothing (role exit) and the putting on of domain 2 clothing (role entry). The significance of these symbolic cues was that they not only made the role entries clear for the individuals, they also solidified the role entry and helped the individuals immerse themselves fully into the roles. For example, even after a difficult role exit from her vice president role, Didi said, "It would take me a while. But once I started playing the music, I would be okay." Her role entry into the musician role when the start of the music triggered her full entry into the musician role. Similarly, for Delores, "putting on the dress and the tiara and walking out onto the stage, which in this case, means walking through the backstage gate onto the festival grounds" was what triggered her entry into her role as an actress. The experiences of the informants in this study is in line with the assertion that symbols function to influence behavior by triggering internalized norms (Rafaeli & Worline, 1999).

Switching skills - As illustrated previously by the individuals who had honed "switching skills," it is possible for people to learn how to make role transitions by applying a skill from one of their domains or through social sanctions in the domain one is entering. Contrary to the presumption that the repetition of the transition itself is what makes the transition easier (Ashforth et al, 2000), the data presented earlier in this findings section shows that the skills for making quick transitions can be learned from various experiences in either of the occupations. The skill of being able to make the switch quickly directly addressed the difficulty of transition (i.e., in switching cognitive

gears) (Ashforth et al, 2000; Louis & Sutton, 1991). These skills were used to help informants "turn on a dime" when moving from one occupation to the other.

Even though the switching skill was more salient in the role entry, the skill was not necessarily learned in the domain they were entering. For Paul, he honed his switching skill by moving from patient to patient (in domain 1). His example, "you can have a patient that dies and two seconds later, you're in the next room dealing with something else" illustrates where he picked up his switching skill. However, Sylvia's example, "you know as soon as you show up at the door of the hospital and you've just been dancing, they don't wanna hear a darn thing about the dancing. They just want you to be the speech pathologist so you just kinda learn for survival mode," illustrates that her switching skill was learned in the domain she was entering.

Experience and skill in domain 2 also influenced the ease of role entries. This variable was distinct from having switching skills because the skill was not necessarily in making abrupt changes. For example, Joselyn said that she had to really think about her role entry when she first started as a water aerobics instructor but after several years, she could "just do it off the top of my head depending on who's in there and who likes what, um, or what I need, you know." Similarly, for Corey, he had been playing music for many years and the role entry for him was merely a change of clothes. Their comfort with the role tasks and their role identity in the second domain made it easier for them to enter the roles. It was not merely about having an affinity for the role but also about being comfortable with the role tasks.

Role entries were made easier over time through the accumulation of scripts (Abelson, 1976) and other "habits of mind" (Louis & Sutton, 1991: 55). This was especially evident for occupations that involved the informant's full attention, such as teaching or performing music. Some of the individuals who had a lot of experience doing certain tasks within the occupation could make the transition easily but for other tasks, the transition was more difficult. For example, Jane thought the transition was easy when she only had to play for Thursday mass but if she was going to play at a special concert, she needed to "get into the zone".

Anticipated role engagement in domain 2 was the most commonly mentioned difficulty in the role entry process. The transition processes for Didi and Katrina, both of whom had clear rituals to make their micro role transitions, clearly showed that the difficulty in making role transitions can be influenced by either the role engagement in the role one is exiting *or* the anticipated role engagement in the domain one is entering. In some cases, it could be both. Katrina was able to use symbolic cues to easily exit her role as a consultant even though she was equally passionate about both of her occupations. However, before teaching her class, she specifically needed a certain amount of "quiet time" to enter into her professor role. Similarly, when Lola was doing stand-up comedy as her second occupation, to mentally prepare, she said, " I remember a couple nights staying at work late after everyone had left and rehearsing in like the conference room, just going through my jokes over and over before I walked over to the club". Both Katrina and Lola experienced their difficulties in their role entries because of the

anticipated role engagement, in which they had to be attentive and absorbed in their roles (Rothbard, 2001).

However, sometimes the anticipated role engagement was preceded by the mental fatigue from the first occupation. Joselyn and Joe mentioned that it was the fact that they were mentally tired from the first domain that made it difficult for them to enter their next roles. Even though Joselyn had taught water aerobics for several years, "sometimes, you really do have to talk yourself into getting into the mood to put on your game face for the night. Sometimes the energy is there and that's very natural when you go in to teach the class and other times, like anything else, you're just dragging and somehow you have to find that within yourself because you're there to give everybody a really great workout." According to Joe, "doing that [teaching] to working at the farm, which was a lot of, like physical labor um, task after task after task type of thing. So, that was harder. That was a lot harder because even after four or five hours with ten high school kids with a lot of energy, you're zapped, like, you're pretty drained." This suggests that role engagement does not necessarily have to be mental but also physical, as was the case with Joe and his role at the farm[1].

TOWARD A MICRO ROLE TRANSITION PROCESS MODEL:

The purpose of this section is to present a micro role transition process model that explains the answer to the question why crossing role boundaries was more difficult for some and less of an issue for others. Since qualitative methods are used to create the model, the results are not meant to be statistically significant and require further study to

[1] Joe had two different multiple occupation combinations: farm worker/music teacher, woodworker/music teacher. He is currently the latter.

confirm the findings. For this reason, the model will be complemented by a series of hypotheses that can be tested in future research studies.

To build this variance model, I start with the basic building blocks of a micro role transition: the difficulty of exit from the first occupational role ("role 1") and the difficulty of entry into the second occupational role ("role 2"). It is assumed that difficulty in leaving role 1 will affect the difficulty of the entry into role 2. The variables discussed in the Findings section are moderators in the process model (see Figure 1.6) that either make the micro role transition easier or more difficult. The more influence a variable has on the individual, the more it affects the difficulty of the role transition. Below, I present the hypotheses derived from the model.

Insert Figure 1.6 here

Role engagement & anticipated role engagement

Informants in this study pointed to the fact that their ability to completely leave a domain was influenced by how engaged they were in the roles they were exiting. For instance, Carol said, " it never shuts off when you're on a project. You're always - you're just always thinking. It's always on your mind," when she described her design occupation. This is in line with the idea of flow (Csikszentmihalyi, 1990), in that Carol was not experiencing a separation from her activities as a graphic designer. However, it was very different for her administrative occupation, "that's the difference between the two jobs. I leave at the end of the day and nothing in the admin job is on my brain". This suggests that the role engagement (which can be emotional or cognitive) one experiences in the

domain one is leaving will have an effect on the amount of spillover experienced. Therefore,

Proposition 1a: The role engagement in domain 1 increases the difficulty of the full exit from role 1.

Informants also reported difficulties in entering their second roles because they anticipated that they would have to be personally engaged in the activities of their second roles. For example, musicians Didi and Jane both spoke of having to do some kind of mental preparation for their musician roles, especially if they were going to perform at a special concert. For these informants, the roles they were entering often demanded that they be attentive and absorbed in their roles (Rothbard, 2001). However, they did not feel the same anticipation if they were just going to a rehearsal or a concert that they did not think was as significant. Non-performers such as Rufus also had to take time to fully enter the addiction counselor role because his clients needed his full attention and be personally engaged (Kahn, 1990). He described his role entry technique, "the remembering all the stories was the difficult part and um, you know, I would not play it off of, you know, I totally lost my mind or something but I asked them to remind me of a story or remind me of something and I tend to pose it as a question, you know, didn't you do this or didn't you remember that? And they would confirm or deny it by sort of retelling the story." This was a technique that Rufus created to help himself cognitively enter the second role (addiction counselor) and it was necessary because he needed to be personally engaged with the clients.

Proposition 1b: The anticipated role engagement in domain 2 (the domain one is entering) positively moderates the difficulty of the full exit from role 1 and the difficulty of full entry into role 2.

Salience of symbolic cues

A common variable that seemed to help the informants make role transitions easier was the presence of symbolic cues. Similar to the role engagement variable, the salience of symbolic cues was important for both role exits and role entries (but not necessarily both for any individual). The symbolic cues served to remind the informants of the roles they were either exiting or entering. In some cases, the cues were not objects but events or actions that triggered the full psychological exit or entry from or into their roles. In the case of Alice, she said, "literally as soon as I walk out of the lobby of Company R, I'm a different person. Everything just kinda - I leave everything there." In other words, as soon as the work day at Company R is done and she leaves the lobby, she is fully exited from her role there.

Proposition 2a: The salience of symbolic cues negatively moderates the relationship between the role engagement in role 1 and the difficulty of full exit from role 1.

Similarly, the salience of symbolic cues helped some informants get into their second roles. Delores has an interesting account of someone telling her that they saw her transform into her role, "you pass that doorway, between backstage and the performance and the performance area and it's a noticeable change - it just - you turn it on and you are that person and so I mean, that was an interesting comment to hear from someone else,

because I felt that transition happen but I wasn't sure that other people knew that that transition happened, until that conversation." Other symbolic cues included greetings from a student (Joselyn) and specific start times of the second role (Joe). The symbolic cues were both a reminder to the informants that they were about to enter their second roles and triggers of behavior specific to the roles they were about to enter (Rafaeli & Worline, 1999).

Proposition 2b: The salience of symbolic cues negatively moderates the relationship between the difficulty of full exit from role 1 and the difficulty of full entry into role 2.

Informants attributed the ease of the transition process to the skills that they learned from one or both of their occupational domains. This is an interesting finding with interesting implications because Ashforth et al (2000) assumed that role transitions were made easier by repetition of the transition itself only. Furthermore, role entries were not necessarily made easier by only the skills learned in the domain one is entering, but also by the skills learned from the other domain (e.g. Paul learning to "flip" to his musician by being a doctor). It was the ability to make abrupt changes that made it possible for some informants to make easy role entries. Some informants were able to apply their switching skills to bypass the process of making cognitive gear switches (Louis & Sutton, 1991), which entail active thinking about the transition.

Proposition 3: The "switching skills" honed in either occupation negatively moderates the relationship between the difficulty of full exit from role 1 and the difficulty of full entry into role 2.

In addition to the "switching skills," the time and skills specific to the role that they were entering had an effect on how easy it was for them to enter the role. Informants attributed the ease of role entry to either the fact that they had had a lot of experience in the second role or to the fact that they loved what they did in the second role. While some informants were able to enter their second occupational roles because of their high role identification, other informants had difficulty entering their second occupational roles. The unstated assumption in the proposition about role identification making role entries easier and role exits more difficult (Ashforth et al, 2001) seems to be that one is only personally engaged in roles in which one has a strong role identification. Kahn's definition of personal engagement, which is defined as "the harnessing of organization members' selves to their work roles" (Kahn, 1990; 694), might justify the fact that people might not actually have a strong role identification but still be personally engaged or vice versa. In Arlene's case, she saw her role as a purchaser as being less important to her than her role as an audio engineer but her responsibilities in the role of purchaser put her in a frame of mind that made it difficult for her to make a role exit. On the other hand, for Alice, even though her role identification with her financial analyst role was just as strong as her real estate agent role, she was able to leave the financial analyst role quite easily because she was able to "leave it at the office" when she stepped out of the building. Personal engagement is not necessarily positively correlated with the degree of role identification.

In Joselyn's case, she was able to enter the teaching role easily only after having been a water aerobics instructor for a few years. However, she said "when I first started

out, I would think about the class, I would think about how it should be structured, I would think about the exercises for each segment of the class". Similarly, for Jane, there was a difference between playing Thursday mass and playing a special concert. She described the transition process for the former as, "most times, you know, it's - I leave work and I'm gonna go play, I don't know, holy Thursday mass" but in describing the process for the latter, she said, " there are certain days when say, you know, on Monday night, I've got this huge concert I have to play, Monday during the day at work, I'll try to make sure that my work is pretty um, you know, it doesn't get too hectic." She had the time and experience playing the mass and felt no pressure to enter the musician role in that instance but since the huge concert was less regular for her, she needed more preparation to get into the musician role.

Proposition 4: The individual's time and experience in the second domain negatively moderates the relationship between the difficulty of full exit from role 1 and the difficulty of full entry into role 2.

DISCUSSION & CONCLUSIONS

The process of analyzing each informant's account of how they made transitions led to a rich understanding of the various psychological and physical factors that facilitate the process of transitioning from one occupational identity to another. From the data, it was possible to create a model that showed when and why it was more difficult for some and not for others to make micro role transitions from one occupational role to another. The interview data also made it possible to clarify what "segmentation" meant in the context

of having two occupations and why the degree of role identification was not always associated with the corresponding difficulty of transition.

The findings from this study also build on the idea of transition styles (Hall & Richter, 1988). The lagged, discrete, and anticipatory styles of transition describe three ways in which people make micro role transitions in terms of how their physical and psychological arrivals align. In this study, the interview data revealed various reasons that people had for engaging in the three transition styles and that some informants might use different transition styles, depending on the roles they were about to enter.

Limitations of this study

The first limitation of this study is the convenience/snowball sampling method of finding informants. While there were a variety of occupations represented among the informants, most of the second occupations were arts-related. However, the advantage of having a diverse variety of occupations was that the results revealed some occupational roles that were more likely to be challenging to enter. For example, informants who had to teach in the evening reported either having to mentally prepare for their classes or at least having to prepare when they first started teaching. These informants helped shed light on the variables (i.e. time and experience) that made it either easier or more difficult to make micro role transitions. With a more uniform sample, I would not have been able to separate the transition difficulties inherent to the occupations from those that were due to having two occupations.

Table 1.1: Comparison of Micro and Macro Role Transitions

	Micro	Macro
Frequency	regularly	intermittent
Length of Time	short	Long
Position vs Role	switching between roles within a position is possible	Formal roles (i.e. "positions) delineate whether a macro role transition has been made or not
Temporal dimension	simultaneously held roles	sequentially held roles

Table 1.2: Summary table of demographic information

Variable	Mean	Standard deviation	Minimum	Maximum
Age	38	9.37	25	60
DOT code difference (segmentation degree)	6.87	4.1	0	18
Complexity score difference (absolute value)	8.27	7.06	1	26
Relative Passion (Diff P)	6.5	29.77	-75	70
Relative ID (Diff ID)	13.73	43.33	-70	90
Income 1 (%)	79.17%	16.78%	38.78%	99.75%
Income 2 (%)	20.83%	16.78%	0.25%	61.22%
Hours 1	40.18	7.4	20	60
Hours 2	15	8.65	5	35
Marital Status	11 married, 19 single/divorced			
Gender	20 female, 10 male			

Table 1.3: Difficulty of transition and Role Segmentation

Transition	Segmentation degree	
	Low (less than mean)	**High (greater than mean)**
Easy	6	4
Difficult	11	9

Table 1.4: Factors affecting Role exits

1st order	2nd order	Aggregate
time as a cue	Temporal cue	**Salience of symbolic cues (Rafaeili & Worline, 1999)**
changing environment as a cue	Visual cues	
leave building as a cue		
leave office as a cue		
changing clothes		
changing own appearance		
need to calm down (affective and cognitive)	spillover (affective or cognitive)	**Role engagement (Rothbard, 2001; Kahn, 1990)**
need to cognitively disengage		
lack of cognitive engagement	lack of role engagement	
lack of cognitive stimulation		

Table 1.5: Factors affecting role entries

1st order	2nd order	Aggregate
preparation for second role	interposed transition (Hall & Richter, 1988)	**Anticipated role engagement (Rothbard, 2001; Kahn, 1990)**
preparation for physical engagement	physical engagement	
need to induce energy/mood (increase arousal)	planned transition (Hall & Richter, 1988)	
attention (cognitive)		
enjoyment of role 2 tasks	affective engagement	**Experience in domain 2**
comfort with role identity	Time/Experience	
comfort with role tasks		
social sanction	Social learning	**Switching skills**
transition experience/repetition of transition	Experiential Learning	
Experience doing tasks (not necessarily in multi-tasking but just the tasks themselves)		
past experience		
Start activity (e.g. playing music)	Audio cue	**Symbolic Cues (Rafaeli & Worline, 1999)**
greeting - cue	visual cue	
physical cue - clothing		
geographic cue		
clothing		

Figure 1.1: Diff Role contrast score for each informant

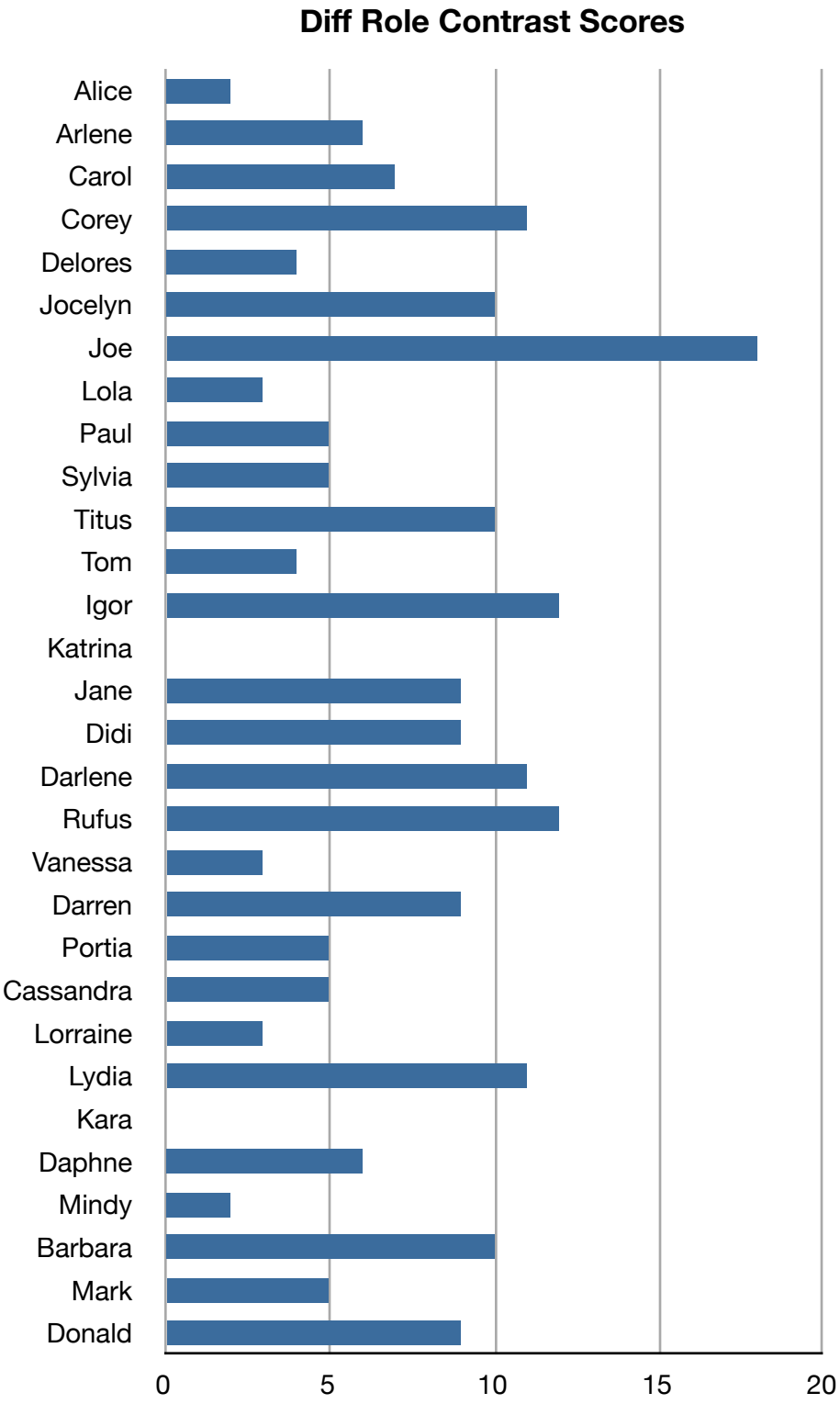
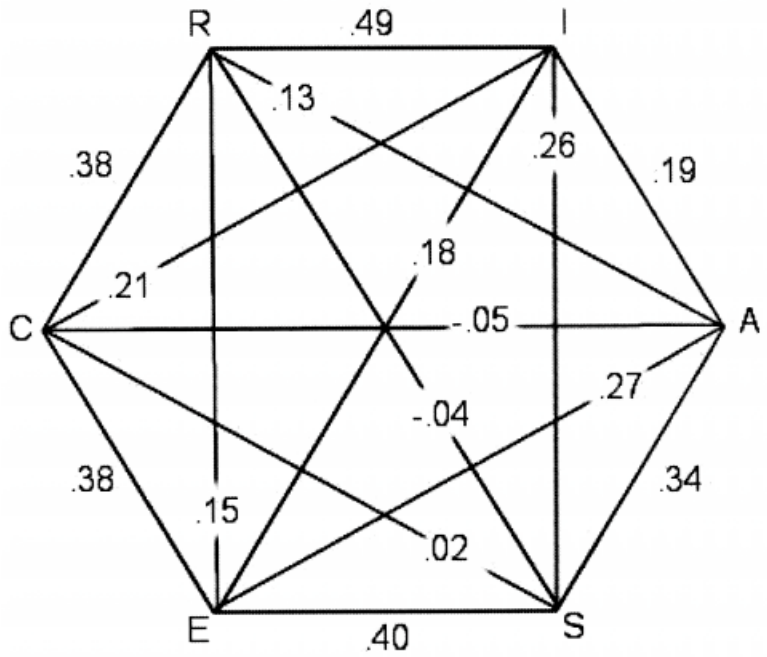


Figure 1.2: Holland's RIASEC Model



<http://osp.revues.org/700> (Accessed July 1, 2014)

Figure 1.3: Comparison of DOT Diff and Cx Diff values

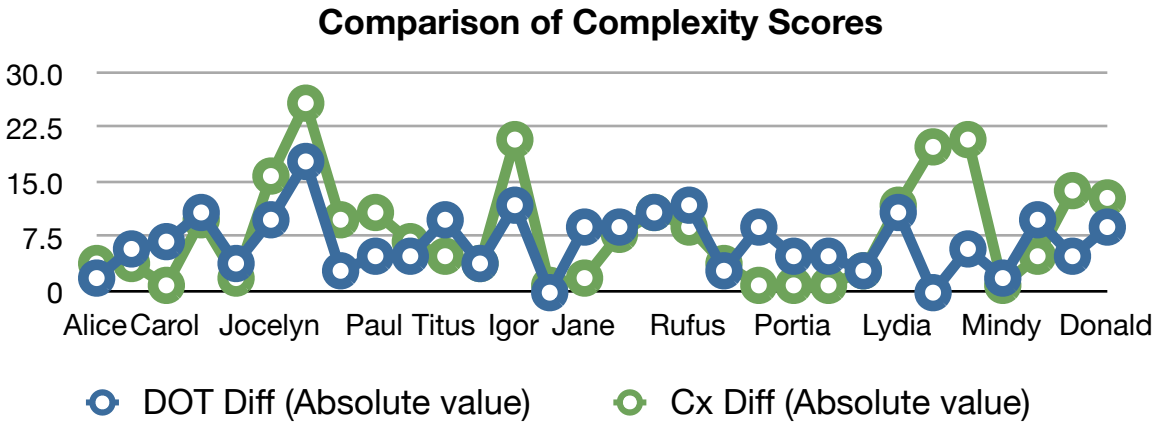


Figure 1.4: Role contrast measures (order of Holland Code differences)

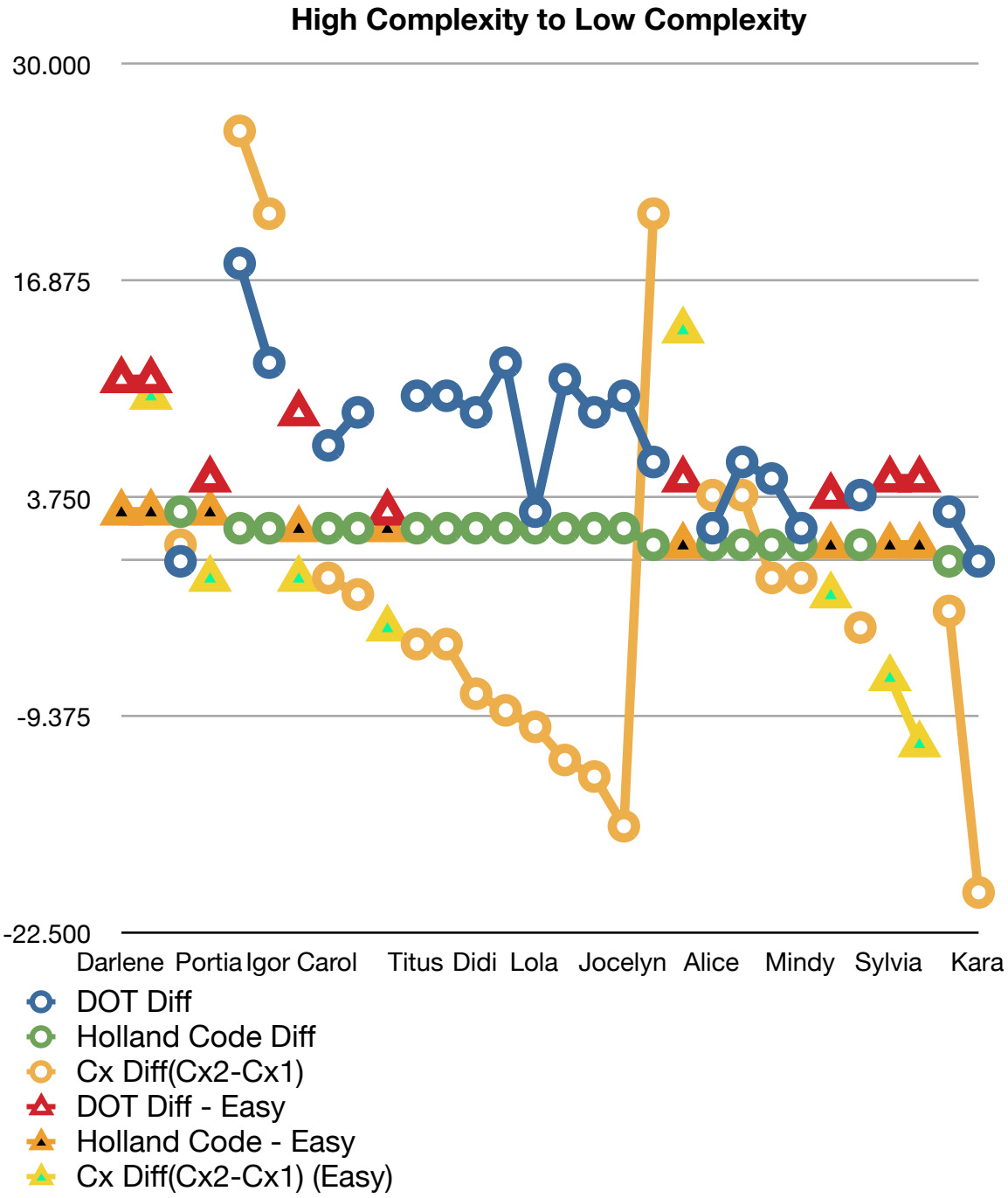


Figure 1.5: Relative Passion vs Relative Role Identification

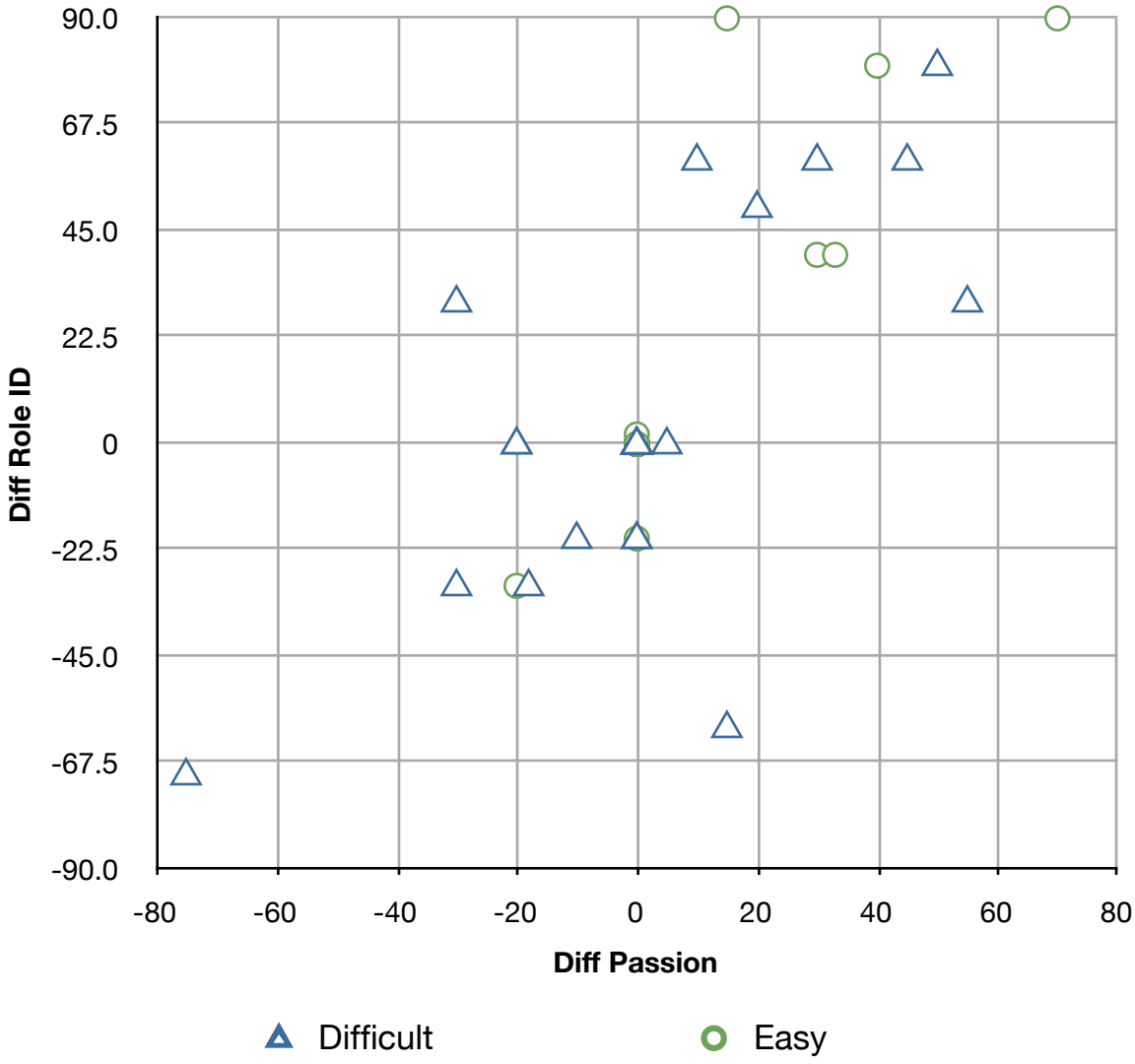
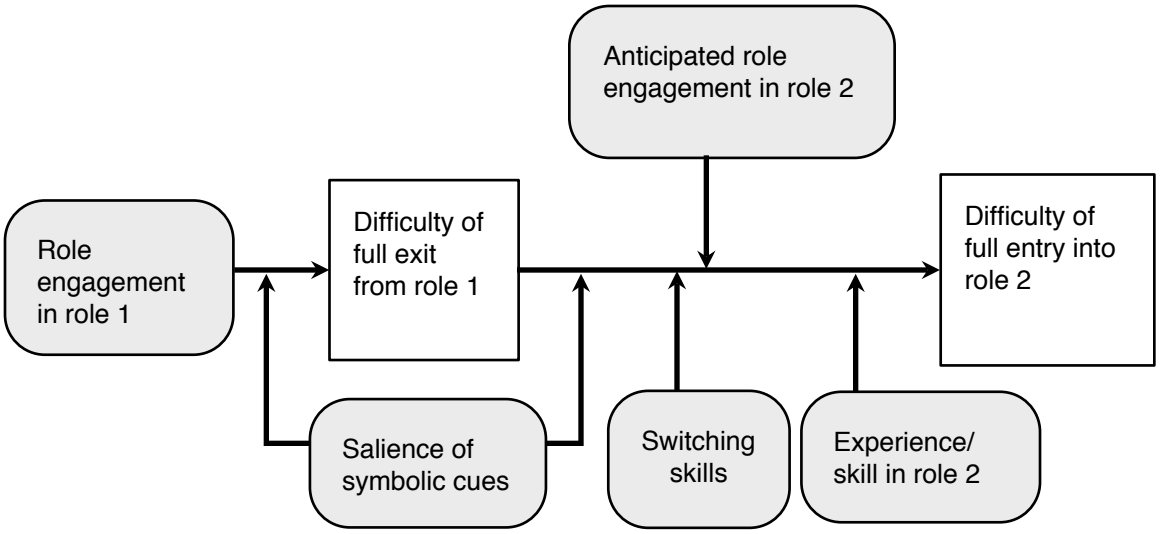


Figure 1.6: Micro role transition variance model



Appendix 1A: D.O.T. 4th, 5th, & 6th digit criteria (http://www.occupationalinfo.org/front_223.html; http://www.occupationalinfo.org/appendxb_1.html)

Data (4th digit)	People (5th digit)	Things (6th digit)
0 Synthesizing	0 Mentoring	0 Setting up
1 Coordinating	1 Negotiating	1 Precision Working
2 Analyzing	2 Instructing	2 Operating - Controlling
3 Compiling	3 Supervising	3 Driving-Operating
4 Computing	4. Diverting	4 Manipulating
5 Copying	5 Persuading	5 Tending
6 Comparing	6 Speaking-signaling	6 Feeding-Offbearing
		7 Handling
	7 Serving	
	8 Taking Instructions - Helping	

Notes: (1) Numbers generally go from most complex (0) to least complex and (2) More detailed descriptions of each level are found at: http://www.occupationalinfo.org/appendxb_1.html

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PAPER 2: ROLE BOUNDARY PERMEABILITY THEORY

ABSTRACT

How much do individuals really want to tell their co-workers about their personal lives and views? This study examines the types of boundaries individuals construct around their domains and what factors are considered when they construct those boundaries. We use interview data to create propositions about the types of role boundaries individuals create around each of their occupational domains. We address the research question, "when and why do individuals create permeable or impermeable boundaries around their work domains?" The findings highlight five different areas of consideration: role competence, role credibility, role focus, multiple-job holding norms, and role compatibility.

Keywords: boundary, permeability, qualitative, impression management, role theory

ROLE BOUNDARY PERMEABILITY THEORY

INTRODUCTION

How much do individuals really want to tell their co-workers about their personal lives and views? On a practical level, this is a question that varies from individual to individual and it depends on both the worker him/herself and the environment. From the individual's perspective, it might be a matter of being a private person or wishing to project a specific image for impression management (Goffman, 1959) purposes. Some organizations might also impose norms that make it more risky to reveal too much about oneself. For instance, it might not be prudent to tell co-workers at work about hobbies or other roles that are time consuming because that could give the impression that one is not 100% committed to work. On the other hand, not letting co-workers know about all of one's talents and skills that could potentially be useful to the organization might also prevent one from optimizing one's performance and influence. This paper examines the types of boundaries individuals construct around their domains and what factors are considered when they construct those boundaries. By recognizing both the personal and environmental constraints of each domain, one can strategically optimize one's influence and performance in each domain by creating the appropriate levels of boundary permeability to increase one's chances of success.

In boundary theory (Zerubavel, 1993; Ashforth, Kreiner, & Fugate, 2000) and border theory (Clark, 2000), letting elements from other domains into a focal domain is the act of creating boundary permeability. The border between domains can be compared

to permeable, impermeable, and semi-permeable cell membranes (http://www.biology-questions-and-answers.com/cell-membrane.html; Accessed 1/12/2014). Permeable membranes allow certain particles from either side of the membrane to cross over while impermeable membranes do not. The semi-permeable membrane prevents some particles from being able to cross while allowing other particles to cross over. One can analogously create these types of "membranes" or borders between two different role domains. However, the comparison is imperfect because there are actually two domain boundaries that determine whether the border is permeable, impermeable, or semi-permeable (see figure 2.1). To be clear, each domain has a *boundary* but there is a *border* between two domains.

Insert Figure 2.1 here

The permeability of the boundaries around each domain help the individual make decisions as to when and where one can engage in certain activities. For example, if one creates an impermeable boundary around one's home domain, this means that that one will not take any interruptions from work (or other domains) when one is at work. This means that one will not talk about work or answer work-related phone calls or e-mails when one is at home. A permeable boundary around the home domain would mean that anything from one's work domain would be able to enter the home domain, including phone calls or actual work. However, one could have a different boundary around one's work domain. The issue is not about what is allowed to leave the domain but rather, what

one allows *into* the domain. If one had an impermeable boundary around one's work domain but a permeable boundary around one's home domain, it means that the individual will do work at home but never allow personal or home-related issues to enter the workplace. This combination of a permeable boundary and an impermeable boundary creates a semi-permeable border between the two domains.

The context that has been used most frequently in the literature on border theory and boundary theory has been the work vs home domains (e.g. Nippert-Eng, 1996; Clark, 2000). Rodrigues & Guest (2012) have extended the discussion in their theory of career boundaries and focused on the boundary itself and their context was a group of pharmacists. The point of the theory of career boundaries was to focus on the antecedents and consequences of preference for strong/weak boundaries. The purpose of this paper is to focus on boundary permeability. We also shift away from the work-family context and examine a different context. The focal group of this study is a sample of individuals who maintain two different occupational roles concurrently. The research question is, when and why do individuals create permeable or impermeable boundaries around their work domains?

LITERATURE REVIEW

Border Theory and Boundary Theory

Clark's (2000) work/family border theory focused on borders and described permeability as "the degree to which elements from other domains may enter (Beach, 1989; Hall & Richter, 1988; Piotrkowski, 1978)" (Clark, 2000: 756). The permeability of a boundary can be physical, temporal, or psychological. One can conceptualize a permeation as an

interruption (Clark, 2000). For instance, if an individual at work takes a phone call from home, that would be an example of a temporal permeation of the home domain into one's work domain, assuming that one has clear work hours (e.g. 9 a.m. to 5 p.m.). It is also a psychological permeation because the individual has redirected one's focus from work to a home matter.

When individuals have two different occupational roles, there may or may not be more opportunities to integrate the two roles. As Clark (2000) pointed out, the clear demarcation of home roles and work roles since the industrial revolution has made those two domains very different and almost like two different nations. The term, "border theory" suggests that crossing over from the home domain to the work domain is similar to crossing the boundaries between two countries, each of which has a different culture. Within the work domain, however, there might be organizations and occupations that are similar and different. When individuals make macro role transitions from one role to another, it would be analogous to leaving one country to living in another. However, when one has two different concurrent occupational roles, it is analogous to living in two different countries and crossing between them on a regular basis. This is similar to the situation of crossing between the home and work domains but the boundary is between two work domains, which potentially creates new challenges (or opportunities) for individuals who maintain two different occupational roles in different organizations.

The re-focusing of the discussion from the home-work context to the work-work context can potentially highlight further insights about boundary permeability because it is not clear when or why individuals would want to create varying levels of permeability

around each work domain. On the on hand, it would seem that there could be more opportunities to transfer "seeds of creativity (Whetton & Cameron, 1988)" (Clark, 2000: 756), especially if the two work domains are similar in some way. On the other hand, individuals might also wish to create an impermeable boundary around one or both work roles to show that they are fully committed to each role or organization. This would be similar to the worker who chooses to never take personal calls at work. Furthermore, most people have a family but not everyone has another occupational role. Family life might come up in casual conversation other occupational roles are generally not assumed. In other words, it might be incumbent on the worker to find a way to create ways to make an work domain boundary permeable. Furthermore, the desire to have varying degrees of boundary permeability might be motivated by different sources. Rather than trying to achieve work/life balance, the goal might be to achieve the ideal ends (e.g. making money) in addition to engaging in work that is satisfying or meaningful.

As Clark (2000) points out, having weaker borders or permeable and flexible boundaries between one's home and work domains, is not necessarily better, as the popular press would suggest because expectations of the individual from each domain become less clear and can lead to increased frustration. Theoretically, it has been proposed in both border theory and boundary theory that keeping work and family domains separate makes it easier to manage the border between them (Desrochers & Sargent, 2004). Furthermore, Hall & Richter (1988) have suggested that there needs to be clear boundaries and some separation between work and home to prevent burnout. On the other hand, integrating the work and family domains can potentially facilitate the

transition between them (Desrochers & Sargent, 2004). Therefore, it is not universally better or worse to have permeable or impermeable boundaries. However, the context has been mainly focused on the work and home domains.

Boundary Work

The terms, "segmentation" and "integration" are related to the permeability and flexibility of the boundaries around each domain (e.g. home or work). Domains are "slices of reality" (Ashforth et al, 2000: 474) that are constructed by each individual when they create and maintain boundaries around a particular part of his/her life. For example, there can be a boundary around one's home domain, which one can keep separate (i.e. "segmented") from or combined (i.e. "integrated") with one's work domain. If two domains are completely segmented, the boundaries are inflexible and impermeable (Ashforth et al, 2000). If they are completely integrated, the boundaries are flexible and permeable (Ashforth et al, 2000). A flexible boundary is one in which there is a pliable spatial and temporal boundary (Hall & Richter, 1988). In other words, the role can be enacted in different places and times. However, permeability is "the degree to which a role allows one to be physically located in the role's domain but psychologically and/or behaviorally involved in another role (Pleck, 1977; Richter, 1992)" (Ashforth et al, 2000: 474). The difference between flexibility and permeability is that the former is a relationship between one's role enactment with space and time, whereas the latter is a relationship between the domain's physical space and one's psychological engagement

with the role in that space. The more disconnected one's roles are with space and time, the more flexible and permeable one's boundaries are.

In Nippert-Eng's (1995) work, the act of taking personal calls at work was an example of having a permeable boundary around one's work domain. In the extreme case of having complete integration of two roles, the individual would also take work calls at home. Hall and Richter's (1988) work seemed to suggest that it is easier for some individuals to have a permeable boundary around one's home domain while creating an impermeable boundary around one's work domain. This means that one will take work to the home domain (either behaviorally or cognitively) but ensure that home issues are never raised at work. This dynamic was observed in a sample of organizational workers in the work-home boundary context. If we focus on individuals with two different occupational roles and the boundary between those roles, it is not clear when they would choose to create permeable or impermeable boundaries around each of their occupational domains.

If we focus only on the occupational roles one has at one point in time, there seem to be 4 different ways to manage occupational boundaries. Depending on how many occupational roles one has and how one manages one's occupational boundaries, one can classify the four boundary management strategies, as depicted in Figure 2.1. Each circle represents a role. The individual either engages in job crafting (Wrzesniewski & Dutton, 2001) or boundary work (Nippert-Eng, 1996). More recently, Kreiner et al. (2009) extended the conversation and found that individuals used 4 different types of boundary work tactics (behavioral, temporal, communicative, and physical) (Kreiner et al, 2009).

Their work answered the question of *how* individuals managed the boundary between home and work. In this study, we extend the conversation further by addressing the research question of *when* and *why* individuals choose to create permeable or impermeable boundaries when managing a work-work boundary.

Insert Figure 2.2 here

Changing the boundaries of one occupational role

Job crafting (Wrzesniewski & Dutton, 2001) is when individuals attempt to change the boundaries of one occupational role by actively taking on more responsibilities or redefining their jobs. This is an agency-dominant way of looking at how people construct their work roles because the assumption is that the occupational position merely provides a framework for the individual, who has a lot of freedom to stretch the task and cognitive boundaries of that position. It is possible for individuals with two occupational roles to engage in job crafting in one or both of their work roles. However, the focus of this paper is on when the individual makes the boundary around each occupational role either permeable or impermeable to a second occupational role.

Boundary work between two occupational roles

Boundary work has been defined as "the strategies, principles, and practices we use to create, maintain, and modify cultural categories" (Nippert-Eng, 1995: 7). A more specific definition is, "how people create, maintain, or change boundaries in order to simplify and

classify the world around them (Ashforth et al, 2000)" (Kreiner et al, 2009). The purpose of the boundary work is to either segment or integrate the two roles by creating varying degrees of flexibility and permeability of boundaries. The extremes were illustrated in the context of one's home and work lives, in Nippert-Eng's (1995), "Home and Work". However, it has been acknowledged that these extremes are ideal types and individuals tend to do a combination of integration and segmentation (Nippert-Eng, 1996; Kreiner et al, 2009).

Extant work on boundary work (e.g. Nippert-Eng, 1996; Kreiner et al, 2009) has mainly focused on the boundary between one's home and work domains. The ways that individuals segment or integrate their work and home domains can be manifested in how they arrange certain physical artifacts such as calendars and keys (Nippert-Eng, 1996). Individuals who have separate calendars and keys for each of their domains are utilizing segmentation strategies while those who have only one calendar and one set of keys are utilizing integration strategies. The aim of this paper is to extend the extant works on boundary work by looking at the boundary between two different occupational roles (as opposed to the boundary between one's occupational role and one's private role).

Individuals with two occupational roles might manage their boundaries in similar ways as the subjects in previous works on the home versus work domains, but not necessarily for the same reasons. The tendency to either integrate or segment one's home and work domains are a result of whether individual preferences and environmental influences match one's state of work-home boundary (in)congruence (Kreiner et al, 2009: 711). Work-home boundary (in) congruence is "a relatively stable state reflecting the

degree of mismatch between what an individual desires regarding work-home segmentation/integration and what the individual perceives he or she is afforded by the various aspects of the environment (e.g., other individuals or groups) (Ibid, p. 711). In other words, work-home boundary congruence is when there is some kind of compatibility between the expectations about the role boundaries between the individual and the role sets of each domain. We extend this conversation by exploring other variables that lead individuals to create either permeable or impermeable boundaries and we do this by focusing on the work-work boundary.

Some "slashes" (Alboher, 2007) have separate business cards and different resumes for each of the occupational roles. The individuals mentioned in Alboher's (2007) work seemed to be compartmentalizing their roles purely for impression management reasons. The fact that they have these reasons makes this kind of segmentation different from the segmentation described by Nippert-Eng (1996) because the reasons for segmentation the home and work domains might stem from the desire to separate one's public life from one's personal life. The fact that holding two different occupational roles represents having two front stages (Goffman, 1959), as opposed to having a front stage and a back stage, means that there are potentially different tensions that individuals face when trying to manage the boundary between two different occupational roles.

Jobs and Occupational Roles

A job can be defined as "a collection of tasks performed by a single individual" (Heneman et al, 1983: 547). The Dictionary of Occupational Titles (D.O.T.)

is an American system of classifying "jobs into 'occupations' based on their similarities and defines the structure and content of all listed occupations" (http://www.occupationalinfo.org/front_223.html). This means that one can have more than one job in one occupation or in more than one occupation. The job is unique to each organization whereas the occupation is based on the similarities between similar jobs across organizations.

A role can be generally defined as "the building block of social systems and the summation of the requirements with which the system confronts the individual member" (Katz & Kahn, 1966: 171). By extension, occupational roles are the building blocks of organizations. For the purposes of this paper, the focus is on people with two (or more) occupational roles and how they manage the occupational boundary, which separates an individual's occupational roles. Role-sets are "the complement of role-relationships in which persons are involved by virtue of occupying a particular social status" (Merton, 1957: 110). For instance, the role-set for an occupational role such as musician, would include other musicians, the conductor, audience members, and any other people with whom the musician interacts.

Multiple Occupational Roles

Individuals who combine two or more occupational positions simultaneously can been described as "scrappy workers" (Caza & Moss, 2013) or slashes" (Alboher, 2007). The most inclusive category seems to be "Slashes" (Alboher, 2007), which describes individuals who have two different roles, whether they are paid or unpaid (e.g. a "doctor -

slash - musician"). In Alboher's view, anyone who has two different roles of any kind would be considered "slashes". This means that people who do volunteer work or are parents in addition to their job would be considered slashes (i.e., day job title/volunteer work title). More recently, the term, "scrappy worker" (Caza & Moss, 2013) has been used to describe individuals who put different types of work together to create more meaningful combinations of work for themselves. These workers can be considered to be a sub-set of slashes, with the emphasis on creating more meaning in their work lives. Scrappy workers can also include volunteers but perhaps not familial roles, whereas Alboher's (2007) slashes would include parental roles.

Other works on multiple occupational roles have been about individuals who moved from one role to another. In between each role, there was a macro role transition, which has been defined as the passage "between sequentially held organizational, occupational, or professional roles" (Ibarra & Barbulescu, 2010: 136). Portfolio careers (Mallon, 1999; Fenwick, 2006) and kaleidoscope careers (Mainiero & Sullivan, 2005) are two types of careers that are made up of two or more sequentially held work roles. The Protean career (Hall, 1976) describes the self-directed career, which is based on one's values.

The ways in which individuals with multiple occupational roles integrate or segment their occupational roles might be similar to the way one integrates or segments one's home and work roles. However, the considerations might be different because we are talking about two public roles rather than a public role and a private role. The

potential for role ambiguity and role conflict would seem to be higher when one is managing two front stages, which may or may not be related.

The focus of this paper is on how individuals manage the boundary between two different public roles and when they choose each boundary work strategy. Using Goffman's (1959) conceptualization of front and back regions, parental roles and some hobby roles (e.g., stamp collector or someone who plays music only at home) are considered to be back regions. Therefore, in order to focus on only public roles, people with two occupational roles are an ideal group to study because they clearly have two public roles with a boundary that needs to be managed. The decision to either integrate or segment two occupational roles is also not clearly understood. The research questions can be specified further as: (1) when are individuals more likely to create a permeable boundaries around each occupational domain and (2) when are they more likely to create impermeable boundaries around each occupational domain?

METHODS

Sample

Maintaining multiple roles means that one needs to engage in boundary work. Workers who juggle more than one occupational role have not only an organizational boundary, but also an occupational boundary to manage. In the scholarly literature, this type of boundary management is a form of boundary work, which is a process of "how people create, maintain, or change boundaries in order to simplify and classify the world around them (Ashforth, Kreiner, & Fugate, 2000)" (Kreiner, Hollensbe, & Sheep, 2009: 705).

Recognizing that full integration and full segmentation of roles are ideal types (Nippert-Eng, 1996; Kreiner et al, 2009), individuals engage in boundary work with varying degrees of integration and segmentation by creating varying levels of boundary permeability and flexibility around their occupational domains.

We used a social constructivist perspective (Creswell, 2003) to explore the research question and relied on the primary data extracted from semi-structured interviews of individuals who either had maintained or were currently maintaining multiple simultaneous occupational roles. The sample for this study includes 30 individuals with various combinations of occupational roles (see Table 2.1). A total of 696 pages of data were transcribed from 30 interviews. Theoretical saturation was reached at around 25 interviews when new interviews did not add any new insights or knowledge (Glaser & Strauss, 1967) . There was variation in the degree to which they chose to integrate or segment their roles and in the ways in which they explained why they did so.

Insert Table 2.1 about here

The sample was obtained through Facebook ads, network contacts, and creating a snowball sample from informants (i.e. asking informants if they knew of anyone else who had multiple occupational roles). The interviews were either conducted in person or over the phone. Each interview was audio recorded and transcribed verbatim for coding and analysis. The criteria for inclusion in the study were twofold. Informants had to have two

different occupational roles and they had to be financially compensated for both roles. The purpose of the latter criterion was to ensure that the roles were public roles because non-compensated roles (e.g. hobbyist musicians who only play at home) might not require interacting with other people. It was important that informants have at least some human interaction with others in both roles because creating a role boundary permeability is partly manifest in how much (or how little) one tells other people in a particular domain. Also, the focus of this study is on the boundary between two public roles (as opposed to a public role and a private role).

We used an inductive approach to code the data. Following an iterative process (Glaser & Strauss, 1967) of looking at emergent themes in the data, noting them, and probing further about the themes in subsequent interviews, we were able to create propositions that can be considered for future research (Auerbach & Silverstein, 2003). We specifically focused on excerpts that revealed any kind of boundary creation or boundary crossing.

FINDINGS

"Boundarylessness" was expressed in different ways because even though all of their careers were split between two different occupational roles, the types of boundaries they created around each role varied according to different variables. From the data, it was evident that individuals used different boundary management strategies that involved creating various degrees of boundary permeability for different reasons.

Typical responses to questions about whether they revealed their occupational identities can be grouped in the following way:

(1) Individuals never talked about the "other" occupational domain (completely impermeable boundary)
(2) Individual is completely open about both roles (completely permeable boundaries)
(3) People in the domain all know but do not talk about it (latent permeability - everyone in the domain already knows)
(4) Individuals are willing to tell people about the "other" domain but do not advertise it. (partial permeability - not everyone in the domain knows)
(5) The information about the "other" domain that is revealed depends on whom the individual is addressing. (selective permeability)

Some informants were able to be completely open about both of their occupational roles while others were not. It was interesting to note that some individuals with very different roles were able to create permeable boundaries around each of their occupational domains. For instance, Lydia (lawyer/musician) was very open about her musician identity when she was enacting her role as a lawyer and vice versa. On the other hand, Sylvia (speech pathologist) learned to create impermeable boundaries around her two roles after she realized that the role sets of each domain were incompatible.

The responses also highlight some of the nuances of what it means to create boundaries of varying degrees of permeability. The ability to potentially hide a second

occupational role raises the possibility of partial permeability (i.e. willing to reveal the other domain but not actively tell people about it), which is not applicable when talking about one's home domain because it is assumed that everyone has a home domain. The individual is willing to create a permeable boundary around the domain but does not actively do so. The situation in which everyone in the first domain already knows about the individual's second domain but never talk about it (latent permeability) is when an individual creates an impermeable boundary around the first domain but everyone already knows about the second domain. This is different from completely hiding the fact that one has a second domain (completely impermeable boundaries).

The other nuance is that the boundary around each domain is not necessarily uniform around the entire domain. Doing work at home clearly demonstrates that the home boundary is permeable. However, in this study, some informants would reveal their second occupational domain to some people and not others within the same first domain. For instance, Carol (administrative assistant/graphic designer) would tell her administrative peers about her design work but she would not tell her boss. Even though she is not doing actual design work at her administrative job, she is still psychologically engaging her design role when she tells people about her design work. By doing so, she is selectively creating a permeable (or impermeable) boundary around her administrative role, depending on the person she is addressing.

In the next section, we address our research question by grouping the explanations that informants gave for creating permeable or impermeable boundaries around their occupational domains. We also offer propositions that can be derived from our findings.

Sometimes the informants were answering a question about the challenges of having more than one occupational role and others were answering a more direct question such as, “Does everyone know that you have these two different occupations?”.

Tendencies to create permeable versus impermeable boundaries

After analyzing the interview data, the explanations for when the informants tended to create either permeable or impermeable boundaries around each domain seemed to center on five variables that could be grouped into three main categories. Table 2.2 shows the categories, variables, and explanations of why individuals tended to lean towards integrating or segmenting their occupational roles. The focus of the concerns seemed to center on the self, structural norms, or the boundary itself.

Insert Table 2.2 about here

Category 1: Status in each Role

In this category, informants focused on what others would potentially think if they knew that the informant maintained two different occupational roles. The comments could be divided into two variables: role competence and role credibility. With the former consideration, informants were concerned about whether others would think that they were competent enough whereas in the latter, they were concerned about whether they

would be perceived to have as much credibility as their peers who only had one occupational role.

(a) Role Competence

Informants that had segment occupational roles were very aware of the stereotype, jack of all trades, master of none". For example, Sylvia (speech pathologist/dancer) mentioned this perception as a challenge. As a result of being aware of this perception, she also believed that she needed to work harder in order to prove that she was a master in each of her roles. On the other hand, Kara thought confidence was linked to credibility when she said, "there's something about credibility that has a lot to do with confidence" and her boundaries around her roles were a little more permeable. She continued, "I really think that you can drive yourself crazy thinking about whether or not you're serving all the audiences that you want to serve and being as credible as you want to be and I really do believe that credibility lies in doing the best job you possibly can do, to the audience that you are with, in the present."

At the other end of the spectrum, some informants were able to full integrate their two roles and were able to successfully do so, despite the stereotype of being "jack of all trades, master of none". For example, Lydia (lawyer/musician) took up music after she was already well established as a lawyer and had practiced law for over 25 years. Because she was already known as a successful lawyer, she had the idiosyncrasy credits (Hollander, 1958) to add the second occupational role without fear of having her role competence questioned.

Proposition 1a: The greater the perceived threat of being labeled a "jack of all trades, master of none," the more likely the individual will create an impermeable boundary around an occupational domain.

Proposition 1b: The more idiosyncratic credits one has, the more likely the individual is more likely the individual will create a permeable boundary around an occupational domain.

(b) Role Credibility

There were two considerations in which the loss of role credibility was seen as a risk, which led to the informants to create an impermeable boundary around a domain. The first consideration was in the difference between a full-time versus part-time worker. For example, Lorraine (administrator/real estate agent) mentioned that some full-time real estate agents would mention to their clients that part-time agents might not be as knowledgeable about the market as the full-time agents in order to indirectly put down the part-time agents and increase their own credibility. As a result, Lorraine was very aware of her status as a part-time agent and presented herself as a businesswoman to highlight her technological skills, which gave her a competitive advantage over the other agents. This was a way of creating an impermeable boundary around her real estate role because her administrator domain remained hidden.

However, credibility was not always about technical skills. According to Paul (doctor/musician), "... in the physician world, to tell people that you play music and play in a band kind of makes you seem cool. (laugh) … they're like wow, that's interesting, that's really cool. Um, and in the musician world, telling someone you're a doctor I think destroys your credibility. (laugh)". Even though he was saying it partly in jest, he revealed that credibility is about impression management in the sense that role credibility is not only about one's technical skills.

Proposition 2a: The greater the threat on one's role credibility, the more likely one will create an impermeable boundary around the role.

Igor (media specialist/college professor) taught courses that were informed by his work as a media specialist. In his case, the two occupational roles were complementary and each role seemed to increase his credibility in the other role. For example, he could "prove" to his students that he knew what he was talking about because he actually did media work. Similarly, he could demonstrate his expertise in his media specialist role by virtue of the fact that he teaches courses that are related to media work. Igor created synergy by maintaining both roles because each role raised his credibility in the other role. In other cases, it was more situational as to when there was a credibility boost. For example, Daphne (nanny/photographer) would only reveal that she was a nanny to her photography clients when she was photographing children because, "it makes them feel better that I'd had a background check" and "I know how to work with them [children]".

For weddings and engagement sessions, she would not reveal her nanny role because "those photography sessions are so intense and the brides are so nervous as they are - they would want someone just totally focused on that - photography". The boundary around Daphne's photography domain was permeable to her nanny role only when it gave her a credibility advantage.

> ***Proposition 2b: The greater the likelihood that a second role will increase one's role credibility, the more likely one will create a permeable boundary around the first role.***

Category 2: Adherence to norms

In this category, the focus was on structural or normative considerations about either well-roundedness or the practice of multiple job holding.

(a) Role focus

Informants revealed that there was a tension between the norm of being focused on only one occupational role versus being a well-rounded individual. The issue was not about whether the informant valued being well-rounded but rather about the perceived norms to have only one occupational role or not. The norm could be from the family, organization, occupation, or society in general. For example, when Didi (businesswoman/musician) was looking for a new job (in the business world), she was advised to take her musical activities off her resume because these may have been perceived to be a distraction.

Similarly, Sylvia (speech pathologist/dancer) did not mention her dancing activities to her peers at the hospital because, “you know as soon as you show up at the door of the hospital and you've just been dancing, they don't wanna hear a darn thing about the dancing.” Expectations from the self and family can also influence how individuals think about their careers and whether they want to integrate their roles. Joe (woodworker/guitar teacher) thought that it was a challenge to think about his career because his family’s and his own expectations of what he should do in life were not aligned with what he was actually doing. It seemed that he perceived that there were expectations for him to focus on only one role. The norms in Joe’s case were societal norms.

Proposition 3a: The greater the perceived norm is to be focused on only one role, the more likely one will create an impermeable boundary around the domain.

However, Rufus (engineer/addiction counselor) was encouraged by both of his employers to pursue both occupational roles. If the organization encourages employees to be well-rounded individuals, it is more likely that individuals will feel free to talk about their activities outside the organization. Similarly, Cassandra (administrative assistant/ English teacher) often talked about her English teaching when she was enacting her administrative assistant role. When asked about who knew about her teaching activities, she said, “Actually, all of them, now that I think of it, all of the professors I work with, it's come up in conversation - I've been here 8 years, so in a conversation with them,

sometimes I've had a question about maybe, one of my students, y'know, I'm not sure about what to do with a certain one. I might ask their opinion - it's been very rare but they are aware of um, my other- my night job, especially 'cause they're all professors, so it's in the teaching profession, so they do have, kind of, an interest in what I do." Both Rufus and Cassandra seemed to be working in organizations where well-roundedness was seen as a positive attribute.

> ***Proposition 3b: The greater the perceived norm is to be well-rounded, the more likely one will create a permeable boundary around the domain.***

(b) Norm of multiple job-holding

It is very common for artists to engage in multiple job-holding because most artists cannot survive on only their arts-related job income (Menger, 1999, 2006). For this reason, it was very easy for the individuals who held arts roles to tell their peers in that role that they had another occupational role during the day. However, when they were at their non-arts related jobs, they knew that it was not a norm to have a second occupational role and tended to create impermeable boundaries around their non-arts occupational roles by consciously not talking about the arts role or leaving it off their resumes. However, it should be noted that the public nature of some arts roles made it inevitable that they would be "discovered" by their non-arts peers. This did not seem to

be a problem for the informants but at the same time, they did not go out of their way to tell their non-arts peers that they were also artists.

For example, Arlene (purchaser/audio engineer) performed her audio engineering work in a venue that was frequented by people from the university at which she worked as a purchaser. Even though people knew that she was an audio engineer, she never talked about her work as an audio engineer while she was working at the university. The boundary around her arts role would be permeable in the sense that her audience would include role-set members from her purchaser role while the boundary around her purchaser role was impermeable.

Alicia (financial analyst/real estate agent) and Lorraine also indicated that real estate agents typically have more than one occupation. Alicia said, “they want you to think that they're so good at their job that they would never have to have another job or another source of income. But I'll call people and, um, I'll hear things in the background - I called an agent once and it was a plumbing company and she was a secretary of a plumbing outfit during the day and then did real estate at night.” In addition to creating an image (i.e. of being a credible and able real estate agent), it is also a norm for real estate agents to have other occupational roles. For artists and real estate agents, the boundary is permeable or impermeable, depending on the situation and members of their role sets because on the one hand, there is a norm for individuals in both occupations to have other roles but on the other hand, they want to give the impression that they are 100% devoted to the artist or real estate agent roles. When they see their clients or

audience, they might not want to reveal that they have another occupation but with peers, they might be more open about their other roles.

Proposition 4a: Individuals working in industries with multiple job holding norms are more likely to create permeable boundaries around the domain.

Proposition 4b: Individuals working in industries where multiple job holding is not the norm are more likely to create impermeable boundaries around the domain.

Category 3: Relationship between the roles

This category is similar to Kreiner, Hollensbe and Sheep's (2009) concept of boundary (in)congruence, which is about whether the individual and the collective agree on the type of boundary between home and work. However, the relationship between the roles category is different because the focus is on the boundary itself (as opposed to the agreement on the boundary) and the perceived relationship between one's occupational roles. In other words, boundary (in)congruence is about the relationship between the expectations of boundary types whereas the relationship between the roles here is about the boundary itself and how the occupational roles themselves are related to one another (in terms of either area of expertise and/or role-sets).

Role Compatibility

For some informants, the two occupational worlds they inhabited were vastly different and they did not see them as being compatible in terms of role sets. For example, Sylvia (speech pathologist/dancer) tried to make the boundary permeable between her dancing role and her speech pathology role by inviting some peers from her speech pathology job to a dance recital. It did not turn out well and she did not do it again because the role sets were incompatible. Sylvia said, " my art friends did not like my health care friends and vice versa." As a result, she created an impermeable boundary around each of her work domains.

> ***Proposition 5a: The more incompatible the role-sets of each domain, the more likely the individual will create an impermeable boundary between the occupational domains.***

Other informants had roles that were easily explained to others in terms of role compatibility. Igor (media specialist/professor) was teaching a subject that was very much related to what he did outside the classroom. The roles were different but he could explain it to others without any difficulty because the two roles seemed to complement one another in terms of expertise. His main challenge in maintaining the two roles was transitioning into the teaching role because of the performative aspect of the role. Similarly, Darlene (classroom facilities coordinator/ musician) was able to create a permeable boundary around both occupational domains because both of her roles were

music related (she worked at a music college as a coordinator) and there was some overlap in her two occupational role-sets (i.e. some people she knew were also in both domains).

Proposition 5b: The more compatible the roles are in terms of expertise or role sets, the more likely the individual will create a permeable boundary between the occupational domains.

DISCUSSION

The focus of this study was on the variables individuals consider when creating boundaries between their occupational domains. The findings revealed that there were three levels of focus: the self, structural norms, and the boundary itself. The permeability of the boundaries that individuals created around each domain varied according to the three different levels of foci. More specifically, the variables that individuals considered were: role competence, role credibility, role focus, norms about multiple-job holding, and role compatibility. In general, informants created permeable boundaries around a particular work domain when it was advantageous or did not incur any potential risks as a result of doing so.

Hall and Richter (1988:217) found that individuals were likely to create impermeable boundaries around their work domains while creating permeable boundaries around their home domains because individuals "have greater control over home interference at work". This study showed that there are more variables to consider when individuals manage their work-work boundaries. The variables that individuals

considered in the work-work context seemed to be more related to impression management more than control over their work environments.

This study also extends the work by Ibarra and Barbulescu (2010: 139) on macro role transition (between sequentially held roles) narratives. They proposed, "Narrative identity work will be more prevalent the more the work role transition is radical, non-institutionalized, and/or socially undesirable". For multiple job holders who maintain two radically different roles concurrently, rather than using narrative identity work, this study has highlighted that some have a preference to build impermeable boundaries around each domain (i.e. hide the other role rather than talking about it).

Impression Management for reducing risk

Impression management seemed to be an important consideration when deciding whether to create a permeable or impermeable boundary around each occupational role. For example, individuals did not want to be perceived as a "jack of all trades, master of none" in the workplace. There was an impression management issue because they wanted to be perceived as competent in each of their occupational roles. For instance, an individual who has a day job as a professional (e.g. doctor or lawyer) and does something artistic at night (e.g. musician), might not want to tell bosses, patients or clients about the artistic role because he/she does not want to be perceived as being less than 100% devoted to the profession. Didi (Businesswoman/musician) was advised to remove her music activities from her resume when she left her previous job and was looking for a new job. When asked about why she had to alter her resume, she said, "I think it's the same reason I

couldn't talk about my music in the office, you know, with my work colleagues - they just weren't really that interested. Um, and it was irrelevant, you know, I mean they can talk about anything they want, you know, son's softball practice or whatever. Um, this - why did I have to take it off my resume? I had a lot of people advising me not to put it on my resume… It's distracting for somebody who is reading a resume. They don't need it on there. It won't do any good."

However, some professionals have found ways to integrate their professional careers with their artistic roles, after they have established themselves as successful professionals. For instance, lawyer/musician, Lydia, had a successful law practice for over 20 years and decided to start being a musician on the side. She was able to openly integrate her two roles because she was an immigration lawyer and artists from other countries often need legal services to obtain visas to perform in the United States. As a result, she was able to attract clients to her law firm through most of her musical activities. She usually revealed that she was a lawyer by day when she performed as a musician and would also display her band's CD in her law firm's lobby. For her, there seemed to be no perceived risk in revealing both occupational roles. One could argue that her years of experience earned her many idiosyncratic credits (Hollander, 1958), which enabled her to deviate from the norm of having just one occupational identity as a lawyer. However, her willingness to reveal that she was a lawyer to her musician colleagues and to her audience members suggests that there is more than just idiosyncratic credits at work here.

In Lydia's case, she was able to offer her legal services without impacting her status as a musician because of the ubiquity of musicians with second occupational roles (Menger, 2006). While it is not very common for lawyers to have second occupational roles, it is very common for artists to engage in multiple job holding. As a result, it was not necessary for Lydia to earn idiosyncratic credits before revealing her other occupational role. Lydia's case suggests one can consider different variables in different roles when managing one's role boundaries.

Lydia's case was extreme because of the situation she had created at that point in time. If she were not as successful as a lawyer, she might not have had the confidence to reveal that she was also a musician and display her CD in the law firm's lobby. She can be said to have fully integrated her two occupational roles. Several other informants in this study had varying degrees of willingness to express both of their occupational identities, depending on the situation and it was usually because of possible perceptions that others might have.

Contributions, limitations, and directions for future research

This study extends the extant work on boundary work by answering the question of when (and why) individuals create permeable or impermeable boundaries around their work domains. In particular, the findings highlighted five different areas of consideration when individuals create boundaries around their work domains. All five areas of consideration seemed to be related to impression management. The data also highlighted the idea that

one can create a permeable boundary around one domain and an impermeable boundary around another work domain.

The findings also have practical implications for individuals who might want to embark on multiple occupational roles simultaneously. As some informants found out through experience, it is not always possible to bridge two very different domains if the role-sets are not compatible. The importance of examining the structural norms of each occupational domain and earning idiosyncratic credits (Hollander, 1958) were also illustrated in this study. As Lydia's case highlighted, there was a temporal aspect that could be explored further with longitudinal work or cross-sectional data with a larger sample made up of people in different career stages. Also, novice multiple job-holders might consider different variables from the ones more experienced individuals might see as being important.

The limitations of this study are threefold. First, generalizability is limited because the focus of the study was to draw out factors, not to test the range of those factors. Second, the sample is mainly composed of individuals who choose to have multiple occupational domains. It is not clear if there might be more or different considerations for those who need to have multiple jobs to survive. Future research on moonlighters, who take multiple jobs because they have to do so, would be one way to extend this research. Finally, it is not clear if some of the perceptions are organization-specific or occupation-specific. For instance, the perceived value of being well-rounded might be specific to the occupation or the organization. Studies that focus on specific

occupational role combinations (e.g. doctor/musician) with a sample from different organizations would help to clarify this issue.

Figure 2.1: Boundary types

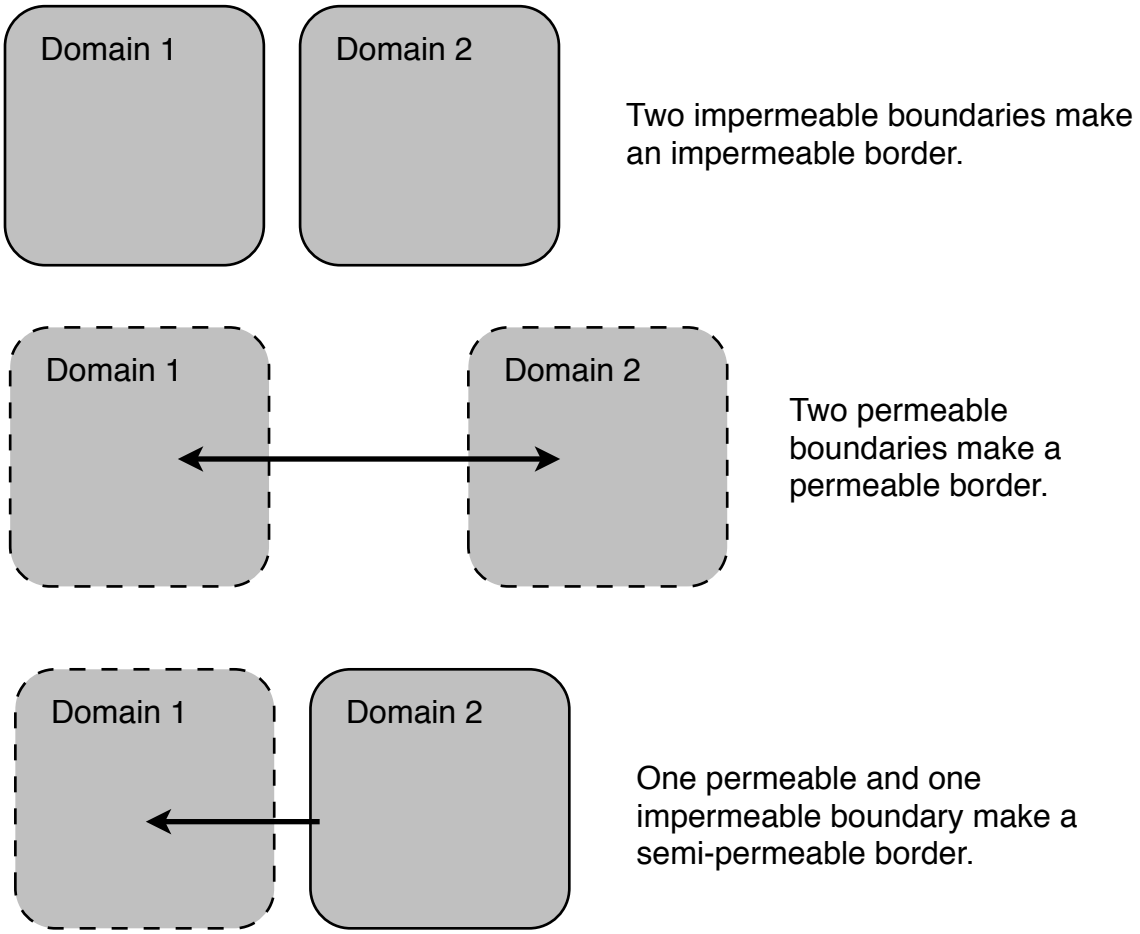
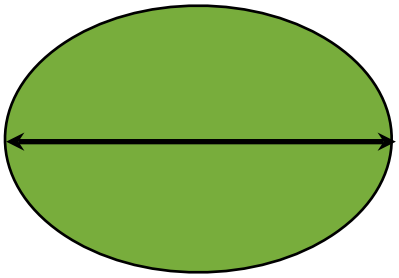
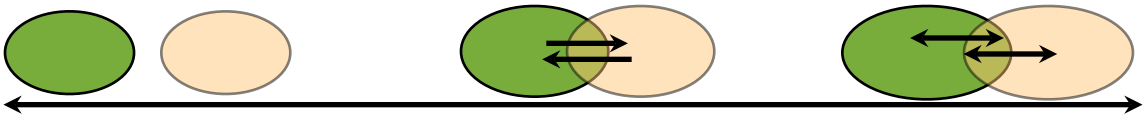


Figure 2.2: Ways to manage occupational boundaries

1. ***Job crafting*** (enlarging the boundaries of an institutionalized role) (agency dominant)



2. ***Boundary Work***



Complete Segmentation **Complete Integration**

Table 2.1: Participant details

Name (Pseudonym)	Gender	Role 1	Role 2
Sylvia	F	Speech Pathologist	Dancer
Paul	M	Doctor	Musician
Lola	F	Banker	Comedian
Joselyn	F	Accountant	Water Aerobics Instructor
Rufus	M	IP engineer	Addiction counselor
Jane	F	Administrative Assistant	Musician
Igor	M	Media Specialist	College Professor
Didi	F	Businesswoman	Musician
Cassandra	F	Administrative Assistant	ESL Teacher
Carol	F	Administrative Assistant	Graphic Designer
Lydia	F	Lawyer	Musician
Daphne	F	Nanny	Photographer
Joe	M	Woodworker	Guitar Teacher
Lorraine	F	Administrator	Real estate agent
Darren	M	IT/HR Administrator	Musician
Corey	M	Purchaser	Musician
Alice	F	Financial Analyst	Real Estate agent
Arlene	F	Purchaser	Audio Engineer
Darlene	F	Classroom facilities coordinator	Publicist/musician
Titus	M	Project manager	Musician
Tom	M	Computer programmer	Musician
Vanessa	F	Administrator	Actress
Kara	F	College professor	Yoga Instructor
Delores	F	Researcher	Actress/singer
Portia	F	Consultant	Entrepreneur
Mindy	F	Audio Engineer	Vet Assistant (Dog Care)
Donald	M	Real Estate Agent	Maintenance Man
Mark	M	Nurse	Real estate agent
Barbara	F	Client Management Associate	Musician

Table 2.2: Variables that influence boundary work strategies

Category	Variable	Tendency to create an impermeable boundary	Tendency to create a permeable boundary
1. Status in each role (self-focused)	(a) Role competence	- prevent stereotype of being a "jack of all trades, master of none"	- have idiosyncrasy credits (Hollander, 1958) from being well-established in at least one role
	(b) Role credibility	- prevent potential loss of credibility because one does not perform the role full-time	- having the other role increases credibility because the roles are somehow framed as being related
2. Adherence to norms (structural focus)	(a) Role Focus (focus on one role vs being "well-rounded")	- unrelated role seen as a distraction - perceived lack of seriousness when there is a second role	- being "well-rounded" is valued by the organization
	(b) Multiple-job holding norms (societal, industrial, or organizational)	- norm is to have only one work role	- norm is to have more than one work role/job (e.g. in cultural industries)
3. Relationship between the roles (boundary focus)	(a) Role Compatibility (role sets and boundary permeability)	- domains or role sets are somehow incompatible - difficulty explaining the combination of work roles	- role sets overlap or in the same industry

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PAPER 3: VIRTUAL INTEGRATION AND SEGMENTATION

ABSTRACT

The purpose of this paper is to extend Ashforth et al's (2000) conceptualization of the integration-segmentation continuum by considering the virtual domain. Rather than focusing on the inter-role transition context, the focus of this paper will be on the intra-role transition that professors make when they teach both online and face-to-face courses. More specifically, the focus is on the virtual domains that individuals create when there is a physical equivalent. Because cyberspace is at least inspired by principles from the physical world (Gunkel & Gunkel, 1997), as interpreted by individuals, when professors create their virtual classrooms, there will be at least some elements from their physical classrooms. Schultze's (2012) study illustrated that individuals can have a unidirectional or multi-directional influence between one's physical and virtual performance identities. In this study, the focus is not on the performance identities, but rather the virtual spaces that professors create when they teach online courses. In this qualitative study, I address the question of when and why professors create virtual environments that are similar or different from their physical environments.

INTRODUCTION

The anonymity of the online world enables individuals to create virtual environments that resemble the physical world in varying degrees. In academia, the virtual classroom is suggested as a way to cut costs (Harper, Chen, & Yen, 2004) or more importantly, to improve student access (i.e. enables more students to take courses from remote locations) (Allen & Seaman, 2007). The assumption is that technology will make it possible to cut costs by enabling people to interact as if they were in the same room through computer mediated communication (CMC). On the one hand, by making the virtual environment similar to the physical environment as much as possible, participants do not have to put as much effort into adapting to the new way of communicating. On the other hand, technology might also offer new possibilities that could potentially improve the communication process. For instance, discussion boards are potentially beneficial for students because students have more "think time" to consider complex issues than in a regular classroom, where the instructor is asking for an immediate answer. Thus, creating virtual environments that are similar to the physical environment is not necessarily the best solution. The point of this study is to take the professor's perspective in exploring the variables that instructors consider when creating their online course environments.

In Goffman's (1959) role theory framework, individuals perform their roles and interact with others in settings that are fixed in space. At the time he wrote his seminal work, "Presentation of Self in Everyday Life," there were no virtual spaces or a readily accessible internet. Therefore, it is no surprise that his conceptualization of settings had

the assumption of physical space. However, in recent years, various authors (e.g. Miller, 1995; Papacharissi, 2002; Gottschalk, 2010) have begun to use Goffman's (1959) work to describe and study virtual domains. Intuitively, it makes sense to use Goffman's work to discuss role performances and interactions because we are obviously "presenting" ourselves online when we log on to social media sites, create websites or avatars that represent ourselves or our work identities. However, even though scholars (e.g. Miller, 1995) have made the "leap" to include virtual spaces in the role theory framework, many questions remain about how individuals create virtual spaces and interact within them. While cyberspace can be conceptualized as being transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009), individuals might not necessarily want to replicate the physical world in the virtual world. Furthermore, the requirement for being in the virtual world requires each participant to have a computer and to communicate through technological tools. Even though the virtual world seems to merely offer another domain or "space" in which individuals can create environments and interact with others, technology mediates the interactions (Walther, 1996) and that is what makes the physical-virtual boundary different from the boundary between two physical domains.

The overarching research question of this study is, what makes it more likely that an individual will make the virtual world similar to his/her physical world and what makes it more likely that one will create an entirely different space in the virtual world? While Papacharissi (2009) focused on the interactions individuals have in the virtual domains such as Facebook, the focus of this study is on virtual domains that professors create in course management platforms such as Blackboard or Moodle. In light of the

perception that online courses can be a possible replacement for traditional classes, how much professors try to duplicate the traditional classroom experience is an important practical matter because it is not clear whether the online classroom is indeed a suitable replacement for the traditional class environment. Therefore, the point of this paper is to explore how professors view and create their virtual classroom environments in relation to their traditional classrooms.

In particular, the focal context of this study will be on the professor who has taught both traditional (face-to-face) and online courses. The underlying assumption of this study is that individuals have at least some agency in creating their virtual environments to suit their needs and goals.

LITERATURE REVIEW

Theoretical Framework(s)

The theoretical foundation of this paper is Goffman's (1959) conceptualization of the world as a stage. The purpose of this paper is to explore how professors create and shape their virtual classrooms as compared to their physical counterparts. Part of creating the virtual classroom involves interaction between the professor and students. The role theory framework is useful in this context because there is a performative aspect of teaching that matches the dramaturgical analogy in Goffman's (1959) work. I***nteraction*** is specifically conceptualized as face-to-face interaction and roughly defined it as, "the reciprocal influence of individuals upon one another's actions when in one another's physical

presence" (Goffman, 1959:15). Taken literally, phone calls, video conferencing, and other types of business communication that enable physically or geographically dispersed individuals to communicate, would not be termed as being interactions because either the physical or face-to-face aspect is missing. The ***performance*** also assumes physical presence because it is defined as, "all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers" (Goffman, p. 22). Thus, a performance assumes the physical presence of observers. This means that co-workers interacting in a back room, out of the gaze of observers, would not be engaging in a performance but merely an interaction, Furthermore, the ***setting*** is also assumed to be geographically fixed unless the performer is in a parade, funeral procession, or other type of ceremony, where the location is dynamic. This is made explicit in his description of the physical aspects of the front region, "The 'setting' involving furniture, decor, physical layout, and other background items which supply the scenery and stage props for the space of human action played out before, within, or upon it" (Goffman, 1959: 22). Furthermore, it is assumed, "A setting tends to stay put, geographically speaking, so that those who would use a particular setting as part of their performances cannot begin their act until they have brought themselves to the appropriate place" (Ibid., 22). Thus, the dynamics of virtual domains add an extra dimension that was not considered in Goffman's conceptualization of a setting.

The ***Front*** is the "expressive equipment" (Goffman, 1959: 22) that one uses to define the situation to the observers. There is a fixed element in the front because the

consistency is what makes the observer make sense of the situation. For example, uniforms help observers accept that the person wearing a uniform has a particular role and gives the observer confidence that the situation is what it is. If police officers wore varied types of street clothing, it would make it more difficult for observers to know who to trust when their house has been burglarized. The uniform gives the observer confidence that the uniform wearer is there to help and not to cause further harm. If we subdivide the expressive equipment into the ***setting*** and the ***personal front***, we can see that the former is what stays in the physical location while the latter is what the individual carries with him/her when playing the role. For instance, a doctor's office would be a place in which the patients would be the audience and the doctors, secretaries, nurses, and other staff would be the performers. The waiting room and the examination room would be the "stages" while any rooms that were only accessible to the office staff would be the "back region" or backstage area.

The personal front can be further subdivided into ***appearance*** and ***manner***, with the former being the physical cues (e.g. language used, clothing, gestures, etc.) that communicate the individual's social status, while the latter functions as a signal to the observers as to the "interaction role the performer will expect to play in the oncoming situation" (Ibid, p. 24). For instance, a man wearing a Rolex watch might be communicating a high social status (i.e. appearance) and when he coughs and says, "Ahem!", it means that he is about to make a speech or do something that requires an audience's attention (i.e. manner).

With the relatively recent increased use of the internet for professional activities such as teaching (Becker & Ravitz, 1999) and personal interactions (e.g. online dating) (Madden & Lenhart, 2006), cyberspace has become another "stage," on which individuals can interact with other individuals while being in separate physical spaces, with the added feature of being able to exchange visual information with one another (e.g. in either photographs or video). Rather than relying on only audio and text information, recent developments in online technology have enabled users to see and interact with one another either in real-time (e.g. live performances or broadcasts) or asynchronously (e.g. distance education) (Berge, 1995). The fact that individuals have a bi-directional interaction with one another on the internet also makes it an improvement on previous communication technologies such as print media and television because those were unidirectional, with the users passively receiving the information. The bi-directional interaction is termed, "lean forward" (i.e. active) while the unidirectional interaction is termed "lean backward" (i.e. passive) (Nakatsu, Rauterberg, & Vorderer, 2005). By enabling active participation, online interactions seem to move closer to being "performances" with virtual space being the "setting" in the Goffman sense of the word.

Boundary Theory

While Goffman's work sets the foundation for this paper, the specific starting point for theorizing in this study is boundary theory (Zerubavel, 1991; Nippert-Eng, 1995) and the basic idea that we create "mental fences" (Zerubavel, 1991: 2) to define one thing as being separate from everything else in time and space. Professors create mental fences

around their physical and virtual classrooms. In Goffman's parameters for his work on impression management, the boundary between two domains is literal in the sense that it is a physical one. For example, a board room can be considered the front stage for playing one's role as a manager for a specific company while the back stage is the manager's office. A less literal boundary might be the mental temporal fence around childhood and adulthood. The gap between those two stages of life might be dramatized with a rite of passage such as a bar mitzvah or a debutante ball. Similarly, military basic training is a way of separating the civilians from the soldiers in both time and space. Boot camp takes place at a specific time on a military base that is specifically constructed for that purpose and the training time separates the soldier's previous civilian life from military life. In this case, there is a mental and temporal fence around one's civilian role and one's military role.

In this paper, we conceptualize a mental fence between the physical and virtual domains. The functional role (i.e. teacher) will remain the same but the environment will change, from the physical classroom to the virtual classroom. This is a type of intra-role boundary that has not been discussed thus far and has relevance to today's world of work. A **role boundary** is, "whatever delimits the perimeter - and thereby the scope - of a role" (Ashforth, 2000: 474). The extant work has been on micro role transitions (Ashforth et al, 2000) and macro role transitions (Ibarra & Barbulescu, 2010), which are about crossing inter-role boundaries. The focus of this study is about professors creating intra-role boundaries around their physical and virtual classroom domains and how they either combine or separate those two domains.

Segmentation and Integration

Integration and segmentation can be conceptualized as mindsets that individuals have when they combine or separate their different worlds in time or space (Nippert-Eng, 1996). For example, one can integrate one's personal life into one's work domain by displaying pictures of one's family on one's work space (Nippert-Eng, 1995). Temporally, reminders and artifacts from the other domain can seep into one's consciousness and create a mental overlap between the two worlds, which would describe "integration".

Segmentation is when individuals maintain a mental fence around a domain and refrain from thinking about it when one is not physically present in it. Coser (1991) highlights the idea that role segmentation is a learned skill that involves understanding interpersonal relationships and that social roles are constantly being negotiated, as opposed to being taken-for-granted because one's role is always in relation to others. For instance, if one is a parent, there must be children. Similarly, if one is a leader, there are followers. In both cases, the individual must learn how to play one's role in relation to the members of the *role-set*, which is defined as the "complement of role-relationships in which persons are involved by virtue of occupying a particular social status" (Merton, 1957: 110). This suggests that segmentation is not just about the individual's task-related skills such as a teacher's ability to write on the blackboard or a computer programmer's coding skills. An individual's position within a social structure helps to guide behavior of the individual and of others in the role set, especially if the individual is not known to others (Coser, 1991). For instance, in the military, where the social structure is very

clearly marked with one's rank on one's uniform, enlisted members know that they ought to salute officers as a mark of respect. As the Manual of Military Training states, "the salute is rendered as a mark of respect to the rank, the position that the officer holds, to the authority with which he is vested." (Moss, 1917 :1124).

In the virtual classroom, the role set potential changes from that of the physical classroom, beyond the fact that the students in each classroom will be different. In the virtual domain, many of the professors who were interviewed for this study said that they had a teaching assistant (TA) in the virtual class but did not have TAs in their physical classes. The way each professor senses and interacts with students online is also different because the social cues are often removed in the virtual domain, whether it is because only audio is transmitted or because the course management system (e.g. Blackboard Collaborate) only allows the professor to see four to eight students on the screen at any given time. As a result of technological constraints, professors might think of their classroom environments differently and choose to shape their virtual class environments differently, thereby segmenting the two domains. On the other hand, if the professor is teaching similar courses in both domains, it might be necessary for the two domains to be integrated at least in terms of content. It is not clear when and why professors choose to segment and integrate the physical and virtual domains.

Boundary Work - Processes of integration and segmentation

The context of home and work has been used for studies on managing multiple roles (e.g. Rothbard, 2001; Rothbard & Dumas, 2006; Rothbard, Phillips, & Dumas, 2005) and

boundary work (Nippert-Eng, 1995, 1996). The similar assumption (to Goffman's (1959) work) is that one is moving from one physical space to another but the focus of Nippert-Eng's (1996) boundary work is on the mental or cognitive separation of one's domains. In other words, does one take work home and/or tend to home matters when one is at work? When a different physical space for each domain is assumed, integration and segmentation are manifest by the mental activities that occur in each domain and in the "realm contents" (Nippert-Eng, 1996: 36) one uses in each domain. For instance, if one thinks about home activities at work or work at home, those are forms of integration. Placing physical objects such as family pictures on one's work desk or bringing one's work home would be examples of using physical objects to integrate the work and home domains. However, if the context is integrating or segmenting one's physical and virtual spaces, there are no physical objects but we have the opportunity to replicate our physical environments in the virtual domain in varying degrees.

The degree to which one integrates or segments one's physical domains can be placed on an integration-segmentation continuum (Ashforth et al, 2000). Individuals will not necessarily be at the extremes but rather, move along the spectrum, depending on the situation. If the context is the physical-virtual boundary, people can integrate the physical and virtual domains by duplicating and presenting realm contents from the physical environment in the virtual environment in the form of images on the screen or reproducing the physical in the virtual realm through speech or making an avatar move a certain way. However, the replication of the physical in the virtual domain is only one way that individuals can integrate the two domains. Going in the opposite direction, it is

possible that one might try to replicate something from the virtual domain in the physical domain, such as the use of online tools in the classroom. In the context of the classroom, the use of online discussion boards would be an example of integrating something from the virtual domain in the physical domain.

One of the characteristics of the virtual domain is that there is often a relationship to a physical entity. One could argue that cyberspace is at least somewhat transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009). In other words, the virtual domain is never entirely segmented from a physical space. This argument is similar to the argument that disembodied virtual identities, which are assumed to have no resemblance to a physical identity, cannot exist. If a person creates the avatar, it is assumed that the avatar will have at least some relationship with the physical identity because the creation came from the person's mind and is therefore limited by the physical person's imagination (O'Brien, 1999). Similarly, the creation of virtual environments is influenced by the physical spaces that one has seen or experienced.

The focus of this paper is on the virtual settings that professors create when they teach online. Rather than focusing on physically static settings, I will focus on the relationship between the construction of the virtual domain setting and one's physical space. More specifically, how do professors integrate or segment their physical and virtual classrooms? In the next section, I will summarize some related works on the virtual domain that are relevant to this study.

Theory extensions to include the virtual domain

Previous studies have looked at performances in virtual space, when the physical assumptions about the various elements (i.e., physical presence and/or face-to-face interactions) of performance are removed. For instance, personal home pages are one way individuals can create a virtual front (Papacharissi, 2002) and interact with one another (Miller, 1995). However, if we compare the personal home page to how one might present oneself in person, the former is a static image that the individual creates that is much like a CV or resume while the latter is dynamic and synchronous. Even when studying Computer Mediated Communication (CMC) with a multimedia context (e.g., Soukup, 2004), the assumptions about performance and interactions change because there is no longer a physical presence and the face-to-face aspect is not always used. When participants are represented by avatars (e.g. Morie, 2008; Schultze, 2012) and not images of the participants themselves, this creates an additional boundary between the participants. In the virtual classroom environment, the environment can be made up of a combination of video, audio, and text communication tools. The variability of the technological constraints (e.g., availability of tools, asynchronous vs synchronous format, etc.) might have an effect on how professors integrate or segment their physical and virtual classrooms environments.

Previous work on Goffman's framework as it relates to the virtual environment has mainly focused on the individual's identity performance and interactions with others in the virtual domain. For example, Schultze's (2010, 2012) work on virtual identity performance focused on avatars and the individual's identity performance. Similarly, Gottschalk (2010) studied the interaction of avatars in Second Life. In Goffman's terms,

they focused on the personal fronts and not the settings. The focus of this study is on the settings that are created in the virtual domain. Professors who teach both on-ground (traditional) and online courses are an ideal sample because each professor's on-ground classroom is the reference point to which their virtual classroom can be compared. It is the relationship between the traditional setting and the virtual setting that is the focal context of this study.

Computer Mediated Communication (CMC) as a medium for presentation of self

Computer Mediated Communication (CMC) can be defined as, "a process of human communication via computers, involving people, situated in particular contexts, engaging in processes to shape media for a variety of purposes" (http://www.december.com/cmc/mag/1997/jan/december.html; accessed Aug. 10, 2014) or more simply, "communication that takes place between human beings via the instrumentality of computers" (Herring, 1996: 1). Thurlow, Lengel, and Tomic (2004) elaborated on the core concepts to identify the assumptions of CMC. The "computer" and "mediated" concepts were important in the technical sense. The main points were that we need to think about what a computer is (because sometimes they are not salient or visible) and that the computer mediates the communication. The most relevant insight for this study was that communication is dynamic (e.g. word meanings can change over time), transactional (i.e., the negotiation of meaning between individuals), multifunctional (or multi-purpose), and multimodal (verbal and non-verbal). Each of these aspects of communication enable individuals to create identity, relationships, and community, whether they are online or offline. In CMC,

individuals communicate through computers to create online identities, relationships, and communities, which are potentially very different from those that are created in physical spaces.

In the context of the online classroom, professors create their online teaching identities and form relationships with students, while creating learning communities that enable students to thrive intellectually. CMC is a relevant theoretical lens that complements Goffman's (1959) work on impression management and boundary theory (Zerubavel, 1991; Nippert-Eng, 1995) because it is through CMC that individuals create virtual environments and identities. CMC also highlights the differences between physical worlds and virtual worlds. Extant theoretical work has proposed that CMC would enable individuals to transcend social boundaries more easily (e.g., Hiltz & Turoff, 1978) and create a "more liberated way of being" (Postmes, Spears & Lea, 1998: 690) because of the increased anonymity of participants. For instance, if all participants in an online chat room are identified only numbers or fictional names with no identifying characteristics, the only judgment that each participant can make of one another will be based on the text communication that is shared on the screen. Similarly, if students in an online course only have limited information about one another and the professor has never met any of the students, it would seem that problems of playing favorites or making biased judgments based on traditional power and status differences would disappear (Haraway, 1990; Mantovani, 1994; Myers, 1987; Poster, 1990) and high status individuals were predicted to be less likely to dominate online discussions than in face-to-face group discussions (Kiesler & Sproull, 1992). It is the control over one's

anonymity that seems to be the key distinction between one's physical and virtual identity. With this anonymity aspect in mind, it is possible that professors will shape their virtual classes to either perceive the anonymity as an advantage or reduce the anonymity to make the virtual classroom resemble the physical classroom.

Anonymity in the Virtual World

Within the CMC literature, the Social Identity Model of Deindividuation Effects (SIDE) (Reicher et al., 1995) is a theory that predicts that the anonymity inherent in CMC can potentially enhance power relations if a common group identity is salient (Spears & Lea, 1994; Postmes et al, 1998). However, the predicted mechanism for the enhanced power relations is different from that in deindividuation theory (Festinger et al., 1952), which posits that individuals who become anonymous in a crowd will feel that they are unaccountable and lose their sense of self identity and participate in antinormative behavior (Diener, 1980; Zimbardo, 1969). SIDE predicts that the antinormative behavior is due to a shift from adherence to a personal identity to a stronger adherence to a social identity. In other words, when groups behave badly, it is not because the individuals feel anonymous but rather, they are identifying more strongly to the salient social identity and conforming to the group norms. Postmes et al (1998) further argue that while the anonymity experienced in CMC might be liberating, it is not the depersonalization aspect of the self and others (Turner et al., 1987) that leads to the increased salience of the social identity. Depersonalization is the "tendency to perceive the self and others not as individuals with a range of idiosyncratic characteristics and ways of behaving, but as

representatives of social groups or wider social categories that are made salient during interaction" (Postmes et al, 1998: 698). As a result, the boundaries between the in group and out group (of the social category) will be made more salient online because the differences between individuals will be less salient while the social categories will be more salient.

In the online classroom, the anonymity might either make it possible for the students to be more outspoken and candid or increase the salience of a social category (e.g. professor, student, gender, age, etc.). From the professor's perspective, the anonymity can have positive or negative implications for how one teaches and prepares to teach. On the one hand, deindividuation theory (Festinger et al., 1952) would predict that the anonymity might make it easier to get students to participate and engage in candid discussions regardless of their offline social status. On other hand, SIDE would predict that students might depersonalize and adhere more tightly to their revealed social identities. However, in the case of the online classroom, individuals do not necessarily give a lot of information (beyond their names) about who they are in terms of social identity. This might be an opportunity for professors to control how candid their online class discussions will be. However, it is not clear if professors consider the amount of anonymity in their classrooms. It is also possible that there might be a relationship between the way professors control their own anonymity and the way they present themselves online and in turn, shape the ways they create their virtual environment.

Because the context of this paper is about professors creating virtual domains that have varying levels of resemblance to their physical classrooms, we need to consider the

relationship between their virtual and physical identities as well because the environment one creates in the virtual world is a reflection of one's identity. For example, in the physical world, one might hang university degrees and other credentials on the office wall to manifest one's identity as a professional. In the next section, I will present Schultze's (2012) classification of identity perspectives and explain how these perspectives complement the other theoretical perspectives discussed thus far.

Influence of one domain on the other

When presenting themselves in virtual domains, it is possible for individuals to create virtual identities that resemble their physical selves in varying degrees. Schultze's (2012) study applied the representational and performative lenses to focus on the performance of embodied identities. The representational view is when the individual replicates the physical self when creating an avatar in the virtual domain. The direction of influence is only one-way, from the physical to the virtual. The performative view is an entanglement perspective, in which one's physical and virtual selves influence one another. The direction of influence is bi-directional between each identity. From a representational perspective, avatars were created to replicate some of the physical user's body. The avatar then became an object for impression management. From the performative perspective, scripts and habitual practices such as choosing one's clothing were the "engine of performative identity enactment" (Schultze, 2012: 9). Furthermore, one of the implications of Shultze's study was that one should be skeptical of the idea that online

identities are merely representational, in the sense that there is a one-way influence direction from the physical self to the virtual self.

The concept of having identities influencing one another is related to the idea of integrating and compartmentalizing/segmenting one's domains. Nippert-Eng's (1996) work on how individual integrate or separate their home and work domains showed that physical artifacts such as calendars and keys are often used to either integrate or segment their domains. When individuals create avatars that have very little resemblance to their physical selves, it seems that the individual is also engaging in a form of segmentation because one is creating a mental fence between the two identities. Since the individual's mind is involved in creating both the physical self and the virtual self, it does not make sense that the disembodied avatar's identity is *completely* separate from the physical person's identity. However, it makes sense to say that the avatar is a segmented self because there are aspects (e.g. appearance) of the physical self that one is consciously not expressing in one's virtual self.

In the context of Second Life, the part that is malleable for the individual to alter and control the most is the avatar or the manifestation of one's virtual self. The environment is alterable to a certain degree too but the focus of Schultze's study was on the avatar. In other forms of virtual domains, there is more opportunity for individuals to either integrate or segment their physical and virtual domains. For example, the virtual classroom's environment is largely created by the professor and there is potentially more variation in how much the professor can or want to integrate or segment their physical and virtual classroom domains. At one of the continuum, the professor could try to

replicate the physical delivery of his/her course in the virtual realm. At the other end of the continuum, the professor could see the virtual domain as a separate space that requires a completely different approach to course delivery. However, it is not clear when or why individuals would choose to integrate or segment their two domains.

Previous research questions on the online classroom and online learning have focused on the student, the degree program, or the school as the level of analysis (Alavi & Leidner, 2001) and has largely been evaluative in terms of whether computer-mediated learning is effective as compared to the traditional classroom learning. For example, in the area of technology-mediated learning (TML), student outcomes such as performance (Leidner & Fuller, 1997), motivation (Hiltz, 1986, 1997), and satisfaction (Leidner & Jarvenpaa, 1993) were the dependent variables. Studies on the virtual online classroom itself have focused on description and the limitations of web-based learning systems (Yang & Lui, 2004). Other studies have focused on the use of "Metaverses" (Davis, Murphy, Owens, Khazanchi & Zugurs, 2009) such as Second Life in education (for a review, see Duncan, Miller, & Jiang, 2012), which seem to be mainly used for collaborative activities.

The Virtual-Physical boundary interface (or the "front regions that professors create in physical space and virtual space)

The differences between the front regions that university professors create in physical space and in virtual space will be compared in this paper. Very few studies have focused on the professor's perspective and how they think about the relationship between their

physical and virtual classrooms. Professors who teach online have a functional role that allows them to use the tools that they are given to create online environments for their students in different ways. At one end of the spectrum, professors can replicate the traditional class environment by duplicating as much of the course content, teaching style, and assignments in the online course. At the other end of the spectrum, professors can frame the online course environment as being a separate space, in which the the delivery of the course material will be completely different and have little resemblance to the way they would teach the course in a traditional classroom. Thus, there is a wide range of possibilities in terms of how professors can create virtual front regions. The question is, when and why do professors create the virtual front regions?

Coppola, Hiltz and Rotter's (2002) qualitative study of faculty "becoming virtual professors" focused on the role changes enacted by the instructors. Their study was about how professors presented themselves differently in the virtual domain. Specifically, they found that professors' affective, cognitive, and managerial roles changes changed with they moved to the asynchronous classroom. Their study focused on role performances as opposed to setting creation. The current study builds on Coppola et al.'s (2002) work by examining when and why professors might want to not only create differences between their physical and virtual classrooms, but also attempt to keep the domains similar.

Research Question:

If we view the classroom as a "front region" in the sense that it is a performance space, the virtual classroom is an interesting context because there is a very specific parallel

physical environment to which one can compare. The entanglement perspective (Schultze, 2012) adds a feedback loop between one's physical and virtual identities. If the focus is on the virtual front region or setting that is created by professors, it is possible that there will be varying degrees of duplication and perhaps a feedback loop between the physical classroom and the virtual classroom. The purpose of this study is to address the question of when and why professors choose to (or not to) replicate their physical classrooms in the virtual domain.

When and why do professors integrate or segment their physical classrooms and their virtual classrooms?

METHODS

The main data gathering technique for this study was a series of 28 semi-structured interviews, which involved interviewing people who had experience teaching both traditional and online courses. Before interviewing the 28 informants, a pilot interview was performed with "Professor D", who taught both online courses and traditional courses. The purpose of the interview was to explore some preliminary themes and to refine the interview protocol (see Appendix 3A). I received written permission after the fact to include the data from that interview for this study. All of the interviews were conducted in 2013 and 2014.

Sample Description and Procedure

Informants were found by contacting possible interviewees listed on LinkedIn and on various online university or college course program websites. I also had access to a list of professors who had taught online courses at a University in the Northeastern United States. The sample included professors who taught various types of online courses in different formats (synchronous, asynchronous, blended, and hybrid). It was a snowball sample, which meant that I asked each participant if they knew other professors who might be willing to participate.

The context of the virtual classroom allows us to make comparisons with a parallel context (i.e. the traditional classroom). Professors have the choice to frame the online classroom as being an experience that is meant to emulate the traditional classroom or a completely different experience. This distinction is important because the mindset potentially affects the choices that each professor makes when creating online courses and whether or not the professor perceives there to be limitations in the virtual classroom. The sample gathered for this study was ideal because there was a mix of professors who had experiences in different types of online teaching. Table 3.1 shows the different possible formats of online courses. Some informants had experience teaching courses in more than one format. For example, June had taught both purely online synchronous and asynchronous courses.

Synchronous courses were those that included a "live" online lecture component, in which the professor was delivering a real-time lecture to the students through a course management system such as Centra or Blackboard Collaborate. In all cases, the lectures were recorded for students to watch after the lecture was delivered. The asynchronous

format was when there was no “live” lecture and students could access the materials online whenever it was convenient for them. They typically had weekly readings and assignments that could be completed on a weekly basis. Other variations included the hybrid and blended formats. For this study, four professors had experience with blended learning and two professors had some experience with hybrid courses. The hybrid course was a synchronous only format in which some students were online while others were physically in the classroom with the professor during the lecture. Blended learning was when the students were required to attend at least one face-to-face class, physically on campus and the remaining class sessions were delivered online, either in a synchronous or asynchronous format. None of the professors had experienced teaching blended synchronous courses, which would entail some lectures delivered in real time online and some lectures delivered face-to-face. Table 3.1 summarizes shows the professors’ experiences teaching in the various formats.

Insert Table 3.1 here

Interview Protocol

Each interview lasted approximately 30 to minutes to an hour. The interview protocol is shown in Appendix 3A. The interviews were semi-structured and follow-up questions were added if informants mentioned themes that were unexpected. For example, in one of

the first interviews, the participant said that she would make the online course more difficult because she was not sure if students were working or not. In subsequent interviews, I asked informants if they consciously made their online courses more or less difficult than their traditional courses.

All interviews were recorded using a portable recording device after they either gave me verbal consent (if they were on the phone) or signed a consent form agreeing to be interviewed and recorded. All audio files were transcribed using Hyper Transcribe software. The transcriptions were then coded and analyzed with a spreadsheet to organize the codes. Each informant was given a pseudonym to protect their identities in the transcriptions and in this paper. Theoretical saturation was reached at around 25 interviews.

Data Analysis

The purpose of this analysis is to develop propositions about why and when professors integrate or segment their physical and virtual domains. Following an iterative process (Glaser & Strauss, 1967) of noting emergent themes in the data and probing further about those themes in subsequent interviews, I was able to create hypotheses for future research (Auerbach & Silverstein, 2003). The transcriptions were coded in Hyper Research Software, which is a type of software designed for analyzing qualitative data.

FINDINGS

Structure

The main common theme that emerged from the interview data with professors who had experience teaching both online and traditional courses was "Structure". More specifically, the online environment required professors to create more structure at the start of the course and once that structure was in place, it was nearly impossible to change that structure during the administration of that course. In a traditional classroom, professors perceived that the structure was more flexible and an element of "co-creation" was possible with the students. This meant that the elements of the course could be changed on the fly and a sense of spontaneity was possible, for those professors who wanted that spontaneity. In a way, professors create a mini version of a virtual "iron cage" (Weber, 1904, 1994) whenever they create a new online course. This is not to imply that there is a strict hierarchical order but rather, that once the structure (i.e. syllabus, course materials, etc.) is in place, it is almost impossible to change it midstream during the process of delivering the course.

One of the reasons it was impossible to change the structure of the delivery of the course was rooted in ***technological constraints***. Two professors who taught media courses faced the issue of having to prepare video clips ahead of time. In the traditional classroom, they were able to spontaneously show any video clip that was stored on their computers if the discussion veered towards a direction that made the clip relevant. However, the spontaneity that was possible in the traditional classroom was made impossible in the virtual domain because the video clips had to be converted to a

particular format that could be shown in the online course delivery system. As a result, professors were either required to anticipate the many directions the discussion could take or make their class deliveries more structured and professor-directed so that the video clips they showed would be more predictable.

Some professors who did not have media-rich courses also mentioned that they had technological constraints that prevented them from being as spontaneous in the virtual classroom. For instance, Dahlia's preparation for entering the online class was different from the traditional class preparation.

O: … *what do you do before you enter a traditional class?*

D: *Um, I can be sitting at my desk doing almost anything until right before so I have no last minute prep in a traditional class.*

O: *Oh, ok.*

D: *I mean I - I just go in and do it.*

O: *Oh, ok.*

D: *but for the online one, I made sure that I had everything available to me that I needed, whether it was on paper or whether it was on my computer because I felt like that time was so precious because I wasn't seeing those students in office hours or I wasn't gonna be able to hang out with them afterwards so I had to be 100 percent prepared. I couldn't be in class and say, oh you know I have that article in my office. I'll give it to you guys later.*

O: *Ah.*

D: *I couldn't do that.*

O: *So it's like you had to be more focused.*

D: *Yeah. Yeah, absolutely.*

Keeping Ashforth et al's (2000) integration-segmentation continuum in mind, there were various themes that emerged from the data that could be categorized in terms of integration or segmentation. However, it was not clear that each person's approach to teaching online could necessarily be mapped on a continuum. Rather, there seemed to be roughly three degrees of integration and three types of segmentation. In other words, informants seemed to have varying degrees of replication between the physical and

virtual classrooms (i.e. integration) but at the same time, the separation between the two domains could be viewed as three ways that informants separated the two domains but not as degrees or levels of segmentation.

Degrees of Integration

The degrees of integration were related to how much each instructor attempted to replicate the physical and virtual classroom environments. At the **low level of integration**, there was very little replication. At the mid-level of integration, there was a one-way replication from the physical to the online domain but not from the online to the physical. At the highest level of integration, there was a two-way replication, where the professor would bring elements of the traditional class to the online class and from the online class to the traditional class.

At the lowest level of integration, professors would not attempt to replicate the physical classroom in the virtual domain and take a different approach to delivering the course in each type of classroom. “Jerry” and “Janine” were two professors who had experience teaching asynchronous courses and made no attempts to record lectures or replicate their face-to-face approaches to teaching by recording themselves giving lectures. According to Jerry,

> *“ And I've taken online classes too and I felt like - one of the things that with - just 'cause there's video doesn't mean that you have to use it. It doesn't mean that it's effective. (laugh) So, like, my idea of sitting, listening to a video with somebody reading the PowerPoint slides and I can't see them - I'm just listening - it's just*

kinda like a recorded Powerpoint? It didn't seem - that was like my online class that I took in my PhD program, so I thought, well, they spent a lot of time doing that - maybe it wasn't all that engaging."

Comer & Lenaghan (2012) suggested that asynchronous discussions can be more beneficial than face-to-face discussion for some students in terms of the former being more inclusive and enabling student learning.

Janine also had experience both as an online professor as well as an instructional designer helping faculty create their online courses. She had a similar opinion of the video lecture, "Yeah, my favorite was when the faculty wanted to put in hour-long clips. Like, no. (laugh) From my perspective, I would not want that in my class because the students probably drop out at about 15 minutes into it. It's just attention span." From both Jerry and Janine's perspectives, it seemed that they had no intention to bring the traditional lecture to the online domain. Even though they thought of the online environment as being an extension of their physical space, they did not have the desire to replicate their traditional class approach online.

Another reason one might not want to replicate the physical class experience in the virtual domain might be that the professor had not taught that particular course in the traditional class. In that case, it was possible to create the course from scratch, as opposed to being tethered to a previous way of teaching the course in the traditional classroom. In Janine's experience, "We had the option, if I wanted to get in front of the camera. But, at the time, I had not come that far in the course development to know what I would even talk about. So, I just skipped that."

Whether it was the asynchronous format or the fact that there was no face-to-face course to be used as a model, it seemed that the more novelty that was introduced by the virtual environment, the more likely the professor would have a low level of integration between the physical and virtual domains. In this context, the elimination of the lecture or any kind of verbal interaction with students was an indicator of a low level of integration because a traditional class is typically characterized by at least some verbal communication, either in a one-way direction from the teacher to the student in a lecture hall or two-way direction between the teacher and students in a discussion-based course. The professors who taught synchronous courses in which they were required to deliver a real-time lecture through a course management system such as Centra or Blackboard Collaborate were constrained by their course format to deliver a lecture or discussion session that was similar to their face-to-face class session. Thus,

> ***Proposition 1: The more novelty (e.g. asynchronous communication, content) that is introduced by the virtual environment, the more likely the professor is able to have a low level of integration between the physical and virtual classrooms.***

At the **mid-level of integration**, professors replicated the physical class environment as much as possible in the virtual class. In some cases, they added and used some online tools such as discussion boards, wikis, or blogs in their virtual classes but made no attempt to incorporate those tools in their traditional classrooms. In one case, “Dave”

made the transition to online teaching and no longer taught traditional classes and therefore, could only have one-way replication from the physical to the virtual. In addition to the asynchronous dialogs in his courses, Dave incorporated some optional hour-long synchronous "Q & A sessions" about assignments with students to at least somewhat replicate the in-person classroom experience.

Other professors who only had one-way replication from the physical to the virtual domain tended to be those who had many years of teaching face-to-face courses, were relatively new to online teaching, and did not see any advantages of the online class over the traditional class beyond being able to reach people who were geographically dispersed. For example, "Woodward" had 15 years of experience teaching face-to-face courses and had taught both hybrid and purely online courses for several years. He made no attempts to use more online tools in his face-to-face courses. Similarly, "Fred" had 40 years of teaching experience and had taught two online courses. He attempted to replicate the face-to-face course in the virtual domain and did not use many of the available online tools beyond the video conferencing function for delivering his weekly class sessions. In his traditional class, he was accustomed to showing video clips from his computer whenever the direction of the discussion prompted him to show them. To be able to show videos in his virtual class, he was required to format and prepare video clips ahead of time for the online course. For Fred, the virtual domain required more work and did not allow him to be as spontaneous as he was in his traditional class. "Monroe", who had over 20 years teaching experience perceived the differences between the online domain and the physical domain to be negative and therefore did not make any attempts to

incorporate tools from the virtual domain in his traditional classes. He used the online breakout rooms for his virtual class to replicate the in-class breakout sessions. For Monroe, " when you do a synchronous course, I think they [the students] want the college experience, you know - they know it's not exactly going to be the same but they want to feel that they're having a lot more of that campus type experience". Therefore, for him, teaching online was about replicating the campus experience as best as he could in the virtual domain. For these three professors, their perception of the ideal course experience was the face-to-face class and the virtual course was merely a way to enable more students to take the courses that were offered but offered no advantages over the face-to-face class environment. Thus,

> ***Proposition 2: Professors who have more years of traditional (face-to-face) teaching experience are more likely to have a one-way replication of the physical to the virtual domains (i.e. a "mid-level" integration).***

> ***Proposition 3: Professors who do not perceive any advantages of online courses over the traditional course are more likely to have a one-way replication of the physical to the virtual domains (i.e. a "mid-level" integration).***

The one-way replication could be due to the rigidity of one's mental map (Schultz, 1964) or script, which is defined as, "cognitive structure that when activated

organizes comprehension of event-based situations" (Abelson, 1981:717). Professors who had a **high level of integration** were able to create new experiences in their traditional classes by bringing elements of the online class to the traditional class. For example, "Barbara" used the online course delivery tool, Centra to deliver her face-to-face classes when there were class cancelations due to weather. She was able to contact the technology department and arrange for her class to be delivered online at the scheduled time during snow storms. Similarly, "Joanne" used the online discussion board tools to run her traditional course if she was away. Both Barbara and Joanne were able to switch cognitive gears from a habitual mode into an active thinking mode (Louis & Sutton, 1991) and were able to draw on their experiences of using online tools.

In terms of content or materials, "Nancy" brought some of the youtube lectures she recorded for her online course and used shortened versions of her online course slide decks in her subsequent traditional classes. This was possible because she was teaching the same course in both domains. Other professors mentioned less tangible elements such as structure or the idea that teaching online made them better instructors overall. For instance, "Jane" said that she brought more structure back to her face-to-face class because she had the experience of having to be more structured when delivering her online class. "McCallum" believed that teaching online made her a better instructor in general. Similarly, through the training she received for online teaching,

An extreme case was "Moulton," who seemed to be very conscientious about making sure that his online and face-to-face courses were as alike as possible because the course was a required core course and therefore, the standards had to be the same for both

domains. For assignments and evaluation, he used McGraw Hill Connect to keep the grading aspect uniform between the two domains. Furthermore, he started recording his face-to-face classes after he started teaching online courses because he thought that students would benefit from being able to listen to his classes if they needed to do so. For Moulton, there was an intentional aspect of making sure that his delivery of the online and face-to-face versions of the course would be the same. Professors who taught similar courses did not have as high a degree of integration. For instance, "Mark" taught a course online that was similar to the one he taught face-to-face. However, he did not feel the need to make the two course deliveries exactly the same. He recognized that evaluations such as tests in the online course could not include multiple choice questions because students could just look up the answers online. As a result, he made the test questions for his online course about application of the concepts and students were required to think more deeply about their answers, as opposed to merely memorizing concepts. For Mark, there was only a one-way replication from the physical to the virtual.

Proposition 4: Professors who teach the same course with the same content and syllabus are more likely to have a high level of integration.

Types of Segmentation

When the participants in this study compared and contrasted their virtual and physical classes, their responses seemed to suggest that they perceived the segmentation of the their virtual and physical classrooms in terms of three different categories: (1) process or

delivery of each courses, (2) content of each course, and (3) the perception of the virtual and physical classrooms as being "separate spaces". The first two categories are about segmenting the domains in practice while the third category is about segmenting the domains conceptually. An individual could segment one's virtual and physical domains one, two, or all three ways. For instance, one could imagine a professor who keeps the content of both courses very much the same but delivers the content very differently, and perceives the virtual and physical domains as being separate spaces. The three categories are just three different ways of differentiating and separating the two domains. The common source of the segmentation seemed to be rooted in the perception of constraints imposed by the technology. However, technological constraints were not necessarily negatively perceived. "Jerry," for instance, seemed to see the asynchronous format as an opportunity to present a course without lectures and that was positive for him.

It should also be noted that a professor could simultaneously integrate and segment the virtual and physical classes simultaneously. For example, even though Nancy integrated the virtual and physical domains by bringing content materials (e.g. recorded lectures and problem sets) from the virtual class to her physical class, she perceived the online classroom as being a separate space because she thought the computer was a "buffer" that prevented students from interacting with one another in the virtual domain. Nancy also perceived herself to be not very technologically savvy, which had an effect on how she delivered her online courses. Similarly, "Gordon" did not consider himself to be technologically savvy and saw the virtual classroom as a separate space. Gunkel & Gunkel (1997) suggested that cyberspace is a transcription of the

physical world. However, the degree to which one can transcribe the physical world is limited by one's comfort with technology. "Barbara" and "Lois" both said that they thought of the virtual domain as a separate space until they got used to the technology and then they thought of the virtual classroom as an extension of the physical classroom.

There was also the technological constraint of not being able to see all of the students online at once because the online course software only allowed 4 to 8 students on the screen at any given time. Professors often changed who was on the screen at regular intervals to monitor the students' presence. In this example, the monitoring process was different due to the technical constraints. As a result of the difference in monitoring students, the delivery of the virtual course was a little different than that of the traditional course. the delivery was affected by the lack of visual cues that the professor would get in a traditional class. In a way, the technology draws the professor away from the traditional class domain mindset. An example was "Fred", who said that he could not have the same conversation in the virtual classroom because the students could not talk to each other. He taught a synchronous online course and seemed to be trying to replicate the traditional classroom experience in the virtual domain. The technology prevented him from doing so and therefore, the less comfortable the professors were with the technology, the more likely they were segmenting the virtual from the traditional classroom.

Proposition 5: Professors who are less comfortable with technology are more likely to segment their virtual and physical classes by perceiving them to be separate spaces.

Professors such as "Joanne" and "Moulton" were very comfortable with technology and were able to transcribe the physical world to a greater degree and did not perceive the technology to be a constraint. However, Moulton insisted that his virtual and traditional classes were exactly the same while Joanne acknowledged that she used more internet materials in her online course and found that there was more engagement online than in her face-to-face class. Even though both Joanne and Moulton saw the virtual world as being an extension of the physical world, they had different approaches to in terms of how they delivered their online courses. "June" described the online environment as a "different ballgame" because her approach to doing cases in each domain was very different. Rather than letting the case discussion emerge organically as it would in a traditional class environment, June introduced more structure into her virtual class delivery by using PowerPoint slides to direct the conversation about the case. The slides provided the online students with something to look at and at the same time, removed some of the spontaneity from the class discussion about the case because once the slides were set, she was not able to let the conversation move into tangential directions.

Moulton was able to deliver his courses in both the virtual and physical classrooms in a similar way because he centered his course content on the McGraw Hill Connect system, through which students completed all of their assignments and

evaluations. He delivered his synchronous lectures in a similar way, whether he was online or physically in front of his students. However, Joanne and Jane both taught discussion-based courses and their traditional format courses typically centered on class discussions (as opposed to lectures). Because of technological constraints, they compensated by changing their delivery when they taught online. Several professors mentioned that it was as if the professor was talking to each student and the technology did not allow students to talk to one another. One way to compensate for the lack of student-to-student interaction in class was to create online, asynchronous discussion boards. Professors who taught asynchronous courses and discussion-based courses were the ones who seemed to segment the physical and virtual by way of having different approaches to delivering the course content in each domain.

Some professors such as "Jerry" and "Janine" mentioned that they did not record themselves delivering lectures for their asynchronous online courses. By not including any lectures or synchronous interactions with students, the content of their traditional and online courses were segmented. Similarly, for "Mark," the evaluation tools (i.e. tests and assignments) from each domain were different because students could not be given multiple-choice questions that could be easily answered by looking them up online. The idea of segmenting by changing the content and delivery is related to *Proposition 1: The more novelty (e.g. asynchronous communication, content) that is introduced by the virtual environment, the more likely the professor will be to have a low level of integration between the physical and virtual classrooms.*

Proposition 6: Professors who acknowledge and understand the technological constraints (not necessarily negative) of the virtual domain are more likely to segment their physical and virtual classrooms by creating different content and different approaches to delivering the course material.

DISCUSSION & CONCLUSIONS

The first time a professor teaches online, he/she is creating a new script or framework for the course but it is not completely new. It is a combination of the professor's social role and the scripts that he/she has created for the traditional classroom that has an influence on the creation of the virtual classroom. Goffman's (1959) assertion that social roles are not entirely created anew is relevant here because the online professor is a relatively new role that has its roots in the traditional professor's role. Even if a professor starts his/her teaching career in the virtual domain, he/she still needs to have a conceptualization of what teaching role (in the physical world) entails. Thus, the virtual professor role that is created will have at least a minute connection to a conceptualization of a physical professor role. Similarly, one could argue that cyberspace is at least partly transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009). This study's findings and resulting propositions about the various levels of integration between the physical and virtual classrooms suggest that individuals transcribe the physical world in varying degrees while the propositions about the three types of segmentation suggest that

technological constraints influence how much individuals can actually integrate their physical and virtual classes.

The findings of this study suggest that professors will have varying degrees of segmentation and integration between their virtual and physical classrooms, depending on their previous experiences with teaching and technology. The propositions reflect the idea that integration and segmentation are not necessarily opposite ends of a continuum and that complete segmentation is highly unlikely in the physical-virtual context, especially when the professor has at least some agency in creating the virtual environment. For example, Jerry and Janine had low levels of integration of their traditional and online classes but at the same time, they saw the virtual domain as being extensions of their physical domains (as opposed to being separate spaces). They had a *conceptual* connection between the two domains and the contents of their courses were similar but their comfort with technology enabled them to see alternate possibilities in the virtual domain that enabled them to create different approaches to teaching in the virtual domain, thereby segmenting the domains *in practice*. Moulton, on the other hand, was able to integrate his online and virtual classes at a very high level because his traditional course was centered on the McGraw Hill Connect system, which is also a type of online technology. Because he had that technological focus already in place in his traditional class, moving to the online class domain was fairly easy because the only difference for him in the virtual classroom was the delivery through the computer versus delivery in person. For Moulton, because he was comfortable with the technology, had synchronous lecture delivery, and had no reason to change it for his online course, he did not

experience the technological constraints as other professors did. The integration was both conceptual and in practice.

Unidirectional versus bidirectional influence

When considering the integration of one's physical and virtual spaces, it might be more useful to think about the direction of influence, rather than the amount of influence of one domain on the other. The lowest amount of integration is when there is very little influence of one domain on the other. However, the mid and high levels are about whether the influence is just from the physical to the virtual or if it is in both directions. It goes back to the idea of cyberspace being transcribed from the physical world (Gunkel & Gunkel, 1997; Papacharissi, 2009), which is unique to the virtual domain because one would not necessarily think about transcribing one physical domain to another (e.g. home and work domains) in the same way. An individual might place pictures from home on an office desk but that would not be considered a "transcription" but rather a way to remind oneself of home while one is at work.

Limitations and Future Research

One of the limitations of this study was that it was all self-report and based on interviews only. However, integration and segmentation is theoretically from the individual's perspective and how one combines or separates one's domains both conceptually and in practice. The current study is also not evaluative in terms of effectiveness of teaching, which is beyond the scope of this paper. While it might seem that a high level of

integration is beneficial because it maintains a sense of uniformity in rigor and standards for course delivery, it is not clear whether that is the case. If the online environment offers possibilities to make the course experience better in some ways, perhaps integration of the two domains at a high level is not the best approach. For example, asynchronous discussions might be more inclusive (Comer & Lenaghan, 2012) and therefore more engaging for some students. When students interact with one another in online discussion boards, they have more time to think about their responses and all students can participate in the discussion. As "Linda" said, "everyone participates online," meaning that contributing to the discussion boards can be made mandatory whereas in the face-to-face classroom, discussion time is limited to the time allotted for the class session and some students might not have the opportunity to contribute to the discussion. In asynchronous online environments, the temporal constraints of the synchronous class are removed (Walther, 1995, 1996). On the other hand, several professors did not see the advantages of the virtual environment over the traditional class environment. At this point, it is still not clear what the optimal degrees of integration or segmentation of the virtual and physical class environments are, or if there are such degrees.

A possible extension of this research could be to explore how students integrate or segment their physical and virtual domains. Some students might work better in environments in which there are more similarities between the two domains while others might thrive in virtual environments that are different than the physical environment. The blended environment is a mix of both face-to-face and online instruction that seems to

offer students the best of both worlds. It is possible that the collaboration and opportunities to control the learning process might be the features of blended learning that make it effective (Arbaugh, 2014). However, it is still not clear what the benefits are from each type of online course format.

Overall, the 29 professors (28 interviews plus the pilot interview) had the similar insight that technology was a variable in *how* they integrated or segmented their virtual and physical class environments. Their comfort with technology affected whether or not they perceived the virtual domain to be a separate space, which in turn affected how they either integrated or segmented their virtual and physical classrooms. Furthermore, ensuring that they had a structured approach for teaching online was the common theme that all professors mentioned in their interviews. However, the technology itself was not necessarily the predictor of *when and why* they integrated or segmented their two domains. Rather, it was the relationship that each professor had with technology that seemed to be a better predictor of when they would integrate and/or segment their virtual and physical domains.

Practical Implications

The main practical implication of this study is that the integration and segmentation of the physical and virtual domains are related to a combination of personal characteristics and situational elements. The findings suggested that the professors' relationship with technology and the need to think about time in different ways, influenced how they either integrated or segmented their domains. Even if the professors were delivering synchronous lectures in the same way that they delivered their face-to-face lectures,

several said that they had to make sure that they were more focused and had to deliver a more linear presentation when they were online than when they were in a physical classroom. It was due to the fact that professors perceived that the time that they were online was more "precious" than it was in the physical classroom. Ironically, professors also said that they had to be more responsive online with e-mails and faster with grading their online students' work because students expected their professors to be available at all hours. Perhaps it was the salience of the synchronous time juxtaposed to the asynchronous activities that made the online lecture delivery seem more precious.

The levels of integration highlight three different ways that professors can see the relationship between their virtual and physical classrooms. Professors who had taught the longest tended to have a mid-level integration, meaning that there was a one-way replication from the physical to the virtual domain. In other words, their strategy was to make their virtual classes be as similar to their traditional classes as possible and the technology was just something to overcome. The instructors who had less experience teaching were more likely to be younger and more comfortable with technology, which enabled them to have a lower level of integration and in many cases, segment their domains and create different approaches to teaching online. The different levels of integration suggest that different professors might require different kinds of training for online teaching. Professors who see their virtual domains as transcriptions of the physical world might need more training on how to take advantage of the virtual domain's features to make their online courses more engaging and effective. Seasoned professors might perceive their roles as online professors as a job redesign, especially if they are

transitioning 100% to online teaching (Arbaugh, Dearmond & Rau, 2013), whereas newer professors might be more open to new ways of teaching and be more willing to try new online methods.

The other main finding that has relevance to practice is the common theme of a more structured approach in the online classroom. Some professors perceived the greater necessity for structure to be a positive aspect because it made them better instructors in the physical classroom. For example, Janine said, "I remember when I worked with the instructional designer at University X, she was so good at showing me how to connect my objectives and goals of my class to the specific activities and the specific lectures. So, she was helping me understand that the course objectives and the assignments should be linked to specific lectures ... Nobody really takes you aside - or nobody took me aside and said, this is how you set up a class to make it um, you know, connect these things together. So, when I learned that with her, a lot of things started opening up on how to design my face-to-face class." Janine seemed to integrate her online and physical domains by bring the course design approach from the online to the physical domain. At the same time, she had different ways of delivering the course in each domain to maximize the advantages of each setting. Because teaching online necessarily requires that the instructor be more explicit in his/her presentation of course materials, there are opportunities for instructors to improve their teaching skills by an teaching online course. Due to the relative newness of the online platform, training is sometimes provided for new online instructors. As Janine pointed out, doctoral students might or might not be provided with any teacher training in their doctoral programs and

online teacher training might be an alternate approach to teaching doctoral students how to teach because it forces them to think explicitly about structure and how to put a course together effectively.

On the other hand, some professors (e.g. “Dave”) thought that the fluidity was taken away by the increased structure, meaning that one needed to be clearer online and could not merely “wing it”. Others mentioned that the spontaneity of class interactions were diminished by technological constraints (e.g. microphone had to be “given” to each student one at a time). Being aware of the increased perceived need for structure in the online class environment might be useful for new online professors to consider when creating a new course. Several professors learned to add structure through trial and error. For example, “Otto” initially assigned students to participate in discussion board conversations in an unstructured way but learned to set limits on the number of comments each student could make because the reading and grading of responses eventually overwhelmed him. After the limits were set, the responses were more thoughtful and the grading more manageable.

The practical takeaway about the “structure” theme was that it might be helpful to new online professors to learn the various ways one could adjust the amount of structure in a course. Various types of structure that might need to be more rigid are: time limits or deadlines for discussion boards, discussion focus, order of power point slide contents, rules for discussions (both synchronous and asynchronous), etc. However, other types of structure that could be eased or kept the same as in the physical class are: paper topic choice and types of assignments (e.g. give students a choice of completing 3 out of 5

assignments of different types). The interactions might have more structure but the professor could make the parts of the course that students do on their own can be made less structured to give students more autonomy.

Table 3.1: Professors' experiences in different online formats

	Purely online	Blended	Hybrid
Synchronous	Bobby, Jack, Dahlia, Joanne, June, Gordon, Monroe, Ken, Barbara, Lance, Boris, McCallum, Jane, Moulton, Stuart, Mark, Fred, Woodward, Paula, Peter	(None)	Barbara, Lois,
Asynchronous	Janine, Rob, George, Nancy, Linda, Tom, Dahlia, Joanne, June	Jake, Otto, Jerry, Dave	(Impossible)

Appendix 3A: Interview Protocol for professors

Introductory/Warm-up questions:

Tell me about your teaching experience, starting from the first class that you taught. (number of years of teaching experience in each domain, motivation for teaching, a sense of how much they enjoy (or don't enjoy) teaching, importance of teaching in their lives, comfort with technology, enthusiasm for branching out into the virtual domain, etc.)

How would you describe your teaching philosophy?

1. Describe a typical interaction that you might have with students in class. What kinds of things do you do to prepare for class? What do you do during the class and then after the class?

2. Describe a typical interaction that you might have online, with students you have never met face-to-face. What kinds of things do you do to prepare for that session? What do you do during the session and then after the session?

3. The point of this study is to differentiate virtual interaction vs. physical interaction and consider other things besides the obvious physical vs. non-physical. How do you think about your interactions differently in each domain? Are there certain things you pay more attention to in one than in the other? Is there any difference in the level of difficulty of course material when you go to the virtual domain? If so, why?

4. Which domain do you prefer teaching in and why?

5. The virtual classroom is relatively new. What kinds of things have you been able to do that you might not have been able to do in the online class that you were not able to do in the traditional classroom?

6. Has the virtual classroom required you to do or learn things that you might not have anticipated that you would need to learn? Have you brought anything from the virtual domain to your traditional classroom teaching?

7. Are there any other things that you had not anticipated about teaching online?

8. How do you see your virtual world? Do you see it as an extension of your physical world or do you think of it as a separate space (when thinking about your role as a professor)?

9. Specific class characteristics:

Synchronous versus Asynchronous (format of lectures)

- Class demographics: who is usually in your classes? (older students? local or global?)
- Program: undergrad vs grad
- Class size
- Purely online versus hybrid class
- Do you ever meet your online students in person? If so, when?

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Concluding Chapter

The overall theme of this dissertation was about creating and crossing role boundaries in two different contexts, an inter-role context and an intra-role context. Utilizing a grounded theory approach (Glaser & Strauss, 1967) approach to elaborate (Vaughan, 1996) on previous works (Ashforth et al, 2000; Hall & Richter, 1988), many themes emerged. This dissertation is a collection of three papers that are intended to illustrate only three the themes that emerged from the data. Two papers are from the first context (individuals who have two different occupational roles) while the third paper is from the second context (professors who teach both online and face-to-face courses). The second paper was a bridge paper in the sense that it used the same data as the first paper but the theme was more similar to that of the third paper. All three papers have similar literature reviews that focused on the works of Goffman (1959), Nippert-Eng (1995, 1996), and Ashforth et al (2000) (see Fig. 1).

The first paper was about the inter role boundary crossings or " role micro role transitions" that one makes on a regular basis between two different occupational roles. The second paper further explored the sample from the first paper and focused on the permeability of the boundary around each of the two occupational domains. The final paper was focused on a different context - the border between one's physical and virtual domains.

The main finding of the first paper was that some people seemed to have a "switching skill" that they learned over the course of their careers. It was not a skill that

they were born with or acquired intentionally but in looking back at their careers, they were able to make sense of how they came to be able to easily make boundary crossings that would otherwise be predicted to be difficult. This finding elaborated on Ashforth et al's (2000) paper by adding the "switching skill" as another moderator that affected how difficult it would be for individuals to transition into a role.

The second and third papers were both focused on the boundaries that individuals create around their domains. When considering two occupational roles, individuals considered themselves, the social structure, and the relationship between the roles in creating their role boundaries. However, the professors who were teaching both online and face-to-face courses considered their comfort with technology and teaching experience when they decided to integrate or segment their virtual and physical classrooms. There were varying degrees of integration, which could be unidirectional (i.e. duplicating the physical classroom in virtual space but not vice versa) or bidirectional (i.e. elements from the physical and the virtual classrooms are brought back and forth).

Practical Implications

Each paper suggested different practical implications that could potentially help multiple job holders and professors who teach both online and traditional courses be more aware of how they construct their role identities in each of their domains.

The main finding of the first paper was that some individuals had a "switching skill," that seemed to be learned through various experiences. This suggests that workers who are required to maintain multiple roles, whether they are within one occupational

role (e.g. a professors is a researcher/teacher) or between occupational roles (e.g. lawyer/ musician), could be trained to transition between roles by thinking of their roles as being similar to playing different roles as actors in a play. The act of switching is in an of itself a skill that individuals could learn in order to be able to focus their minds on each role that they are entering.

The focus of the second paper was on the boundary of each occupational domain. In that study, individuals created different types of boundaries, depending on how they viewed themselves in each role, the structural norms of having multiple occupational roles, and the relationship between their two occupational roles. Individuals who are new to maintaining multiple occupational roles might not be aware of how much they can integrate their various roles. The findings of the second paper suggest some considerations to take into account when individuals do not know what they can tell their co-workers. For instance, an individual who is a new accountant with very little job experience might not want to tell his/her co-workers that he/she moonlights as an actor because the roles are not related to one another. Also, as a new accountant, his/her competence has not been established yet. It is also not a norm for accountants to have a second occupational role. However, a more experienced accountant might have more freedom to tell others about being an actor, as Lydia, the lawyer/musician was able to do. because one has earned idiosyncrasy credits (Hollander, 1958).

Most studies of the online class context have been evaluative and focused on the students and their experience. In this dissertation, the focus of paper 3 was on the professors and the relationship between their virtual and physical settings. Previous work

on online professors focused on how professors presented themselves in the virtual domain (Coppola, Hiltz, & Rotter, 2002). Furthermore, Coppola et al's (2002) study was specifically focused on the asynchronous virtual professor and the current study included professors who taught various types of online courses, including synchronous, asynchronous, and blended formats. The findings showed that the novelty of the format potentially contributed to the ways a professor either segmented or integrated the virtual and the physical classroom setting. While the third paper of this dissertation was not meant to be evaluative of the professors, the findings could be useful for instructional designers or instructors who train new online professors. For instance, one of the findings was that professors who had taught for many years and were not comfortable with technology were more likely to try to replicate their traditional class techniques in the virtual domain. For them, there was a one-way integration pattern, which meant that they did not attempt to bring the tools from the virtual domain back to their traditional classrooms. However, professors who were relatively new and were very comfortable with technology tended to be more open to new approaches to teaching online and would at least consider using some tools that they used in the virtual domain, in their traditional classes.

Limitations and future research

The findings of this dissertation only covered the micro role transitions between two physical roles and the boundary creation between domains (both physical and virtual). In addition to the opportunities to build on the findings by exploring the micro role

transitions between the physical and virtual roles, more themes could be explored because the interview data that was gathered for this dissertation was lengthy and rich. For instance, a study of how each individual who had multiple occupational roles could extend Ibarra & Barbulescu's (2010) work on transition narratives. While their work focused on macro role transitions, the data from this dissertation could be used to explore how individuals describe and create narratives about their simultaneous occupational roles.

The sample of professors in the second context mentioned "structure" as being very important in the virtual domain. The structure was mainly in the form of the syllabus and the order of events that were planned throughout the course. For example, once the schedule, assignments, and other milestones were created, professors were very reluctant to change them in the middle of the course. In terms of class delivery, some professors (e.g. June) felt the need to set up slides for case discussions and direct the discussion to be in line with the slides when she taught online. However, in a traditional class, she would let the discussion follow the students. It was as if there was another type of "iron cage" (Weber, 1904, 1994) that was created in the virtual domain, in the sense that once it was created, it was very difficult to change once the course started. Even though it was not a hierarchical type of iron cage, some of the professors perceived that there was a feeling that each student was talking to the professor and not to one another when there was a class discussion. This was different from the traditional class discussion, in which students could feel like they were talking to one another because of the physical proximity. On the one hand, it made the classroom feel more "intimate" (Bobby) because

students each felt like they were having a one-on-one discussion with the professor. On the other hand, the physical isolation of the online classroom made it difficult to create a sense of community (among the students) within the virtual classroom.

Future research could further explore the "structure" theme because interacting in the virtual domain seems to be more deliberate. At the same time, the virtual domain enables individuals to express their views more freely because of the anonymity of the environment creates a "more liberated way of being" (Postmes, Spears, & Lea, 1998: 690). The tension between the structure and the enabling aspect of the anonymity of the environment is interesting because it is not clear when or why individuals feel either constrained or liberated by the virtual domain. The practical implication would be that the findings could help professors encourage more participation if they knew specifically what makes individuals feel more liberated in the virtual environment.

Another theme that can be further explored in the first context is the degree of performance of occupational roles and how that might influence the micro role transition process. For example, musicians and actors perform in front of an audience and their front stage is a literal one. However, in other occupational roles (e.g. accountants), one might be sitting alone in an office or spend very little time in front of clients or an "audience". It is not clear whether the front stage aspect of some roles would make it more difficult for individuals to transition in and out of those roles. Hall & Richter (1988) found that individuals tended to have an anticipatory style of transition from home to work and a discrete style from work to home. If work is the front stage and home is the back stage, perhaps it is the front stage aspect of work that makes it more difficult for the

individual to transition into the work domain. However, Hall & Richter (1988) were only looking at midlife executives. It is possible that individuals with different occupational roles and front stage requirements, will have varying levels of difficulty making the transition into those roles, depending on the front stage requirements of the role one is exiting and those of the role one is entering.

VITA

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