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Julia M. Fullick

*University of Central Florida*



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ARE YOU MY PROFESSION? MENTORING, ORGANIZATIONAL CITIZENSHIP, AND  
PROFESSIONAL IDENTITY

by

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M.S., University of Central Florida, 2008

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A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in the Department of Psychology  
in the College of Sciences  
at the University of Central Florida  
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2012

Major Professor: Kimberly Smith-Jentsch

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## ABSTRACT

The purpose of the current study was to investigate the influence that academic major advisors and informal mentors can have on an individual's identification with a professional organization and their ensuing level of involvement in that professional organization. The present study is unique in that it is among the few to examine mentoring and OCBs in the context of a voluntary professional organization. Participants were 309 individuals with a doctoral degree who are members of the Society for Industrial and Organizational Psychology (SIOP), a large professional organization with 7,847 total members (in 2011). The specific type of OCB investigated in this study was voluntary service as a member of committees within the professional organization. Results indicated that individuals' identification with a particular professional organization was stronger if their academic advisor had engaged in greater OCBs within the organization (i.e., chaired a greater number of committees) and if they had one or more informal mentors who were also members of the same professional organization. Those with a greater number of informal mentors in addition to their academic mentor engaged in greater OCBs within the organization (i.e., participated as a member of more committees). Finally, those reporting at least one informal mentor in addition to their academic advisor engaged in greater OCBs within the organization if their informal mentors had engaged in a greater number of OCBs and when those multiple mentors were more balanced with regard to their to their professional setting (i.e., academia or practitioner). Implications for theory and practice will be discussed.

This dissertation is dedicated to my students, past and future-  
teaching made all of this worthwhile.

And to my grandparents, Jim and Carol Leary and Peter and Peggy Fullick  
who never stopped believing in me.

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## CHAPTER ONE: INTRODUCTION

### Statement of the Problem

Kram (1985) defined a mentor as an experienced individual who provides support for fostering the career advancement of junior individuals. She also emphasized the importance of mentoring in the fostering of professional identity, yet few empirical studies have been conducted examining this (see Dobrow & Higgins, 2005 for an exception). Researchers have also investigated the degree to which individuals imitate the career preferences of their mentors and learn their mentorship skills (e.g., Malmgren, Ottino, & Amaral, 2010). In a time of rampant economic and professional uncertainty, research examining how individuals develop professional identities is crucial. Arthur and Rousseau (1996) discuss the notion of boundaryless careers in which career environments are much weaker situations when compared to traditional organizational settings. Individuals are no longer spending their entire working lives with a single organization and thus are relying on their professional identities to contour their careers. Men and women in the United States have held an average of 11 jobs between the ages of 18 to 44, according to a September 2010 report by the U.S. Bureau of Labor Statistics. This trend is expected to continue as future employees in the United States are projected to have more than a twelve job changes during their working lives (Kanfer, Wanberg, & Kantrowitz, 2001). Our definition of *stability* is changing in response to leaner and more flexible organizations. Individuals are cognitively restructuring and beginning to see a job change as an opportunity for

personal growth and network enrichment. This societal change does not however remove an individual's need to belong. Professional organizations are designed to facilitate professional identity that is inclusive of many different types of jobs and thus serve as a means of making one's career cohesive despite frequent job changes. Slaughter and Zickar (2006) reemphasize the call for research involving the organizational insiders' roles in the socialization process. Like organizational insiders, professional insiders foster socialization within a profession. It is essential for researchers to determine the avenues through which individuals navigate their development of a professional identity.

Although most individuals recognize their profession as a significant component of their identities, there has been only intermittent research conducted involving professional identity (e.g., Becker & Carper, 1956; Hebden, 1975; Witt, 1993), only recently picking up steam (Ashforth, Harrison, & Corley, 2008; Ibarra, 1999; Devos, 2010; Kreiner, Ashforth, & Sluss, 2006; Gibson, Dollarhide, & Moss, 2010; Goodrick & Reay, 2010; Kreiner, Hollensbe, & Sheep, 2006; Loi, Hang-yue, & Foley, 2004; Lui, Ngo, & Tsang, 2003; Pratt, Rockman, & Kaufmann, 2006; Sargent, 2003). Professional identity is defined as "the perception of oneself as a professional and as a particular type of professional" (Bucher & Stelling, 1977, p. 213).

Researchers have suggested that professional identity comprises the beliefs, motivations, values, characteristics, and practices that aid in the defining of an individual's professional role (Schein, 1978). A professional identity is said to involve possessing distinctive knowledge and skills, the capability to perform explicit tasks, and an alliance with a specific reference group (Becker & Carper, 1956; Bucher & Stelling, 1977; Holland, 1988). Mentoring can be a critical component to the development of one's professional identity. As Devos (2010) emphasizes,

“Mentoring needs to be located within its institutional and political contexts as a technology for the production of worker identities” (p. 1222). Mentoring relationships can help protégés cultivate their sense of professional identity while also providing mentors with generativity and purpose (Allen, Eby, & Lentz, 2008; Kram, 1985; Levinson, Darrow, Klein, Levinson, & McKee, 1978).

Stanulis, Fallona, and Pearson (2002) emphasized the importance of providing some type of structured program to welcome individuals to a profession. They stressed that “The presence of a strong induction program can make a significant difference in the retention and quality of teachers” (p. 71). While they are specifically addressing teachers, their conclusions can be applied to virtually any professional organization. They continue, “Mentoring structures vary greatly across schools, yet it is clear that strong mentoring from both the university and school is vital to [professional] retention” (p. 80). Of particular interest is to understand the ways in which academic mentors as well as other professional mentors can help shape an individual’s identity and influence their organizational citizenship behaviors in support of the profession. Professional contexts facing increased competition, job security uncertainty, and team-based work increase the salience of prosocial citizenship behaviors (Chiaburu, Oh, Berry, Li, & Gardner, 2011). Individuals are now being required to possess initiative, adaptability, and a willingness to demonstrate extra effort (Borman & Penner, 2001).

For instance, Ryan and Ford (2010) discuss the unique obstacles relating to organizational psychology and the stigma that many practitioners face being tied to the psychology profession and the “underlying identity problem” (p. 241) we are facing. In particular, they summarize concerns from the identity literature which argue that in order for a

profession to endure and avoid marginalization, it must sustain and clearly define its distinction from other fields (see Brewer, 1991; Forsyth & Danisiewicz, 1985).

A professional organization is typically a nonprofit that seeks to develop and promote public awareness regarding a particular profession as well as protect and support the interests of its members. A professional organization or society relies on the cooperation and participation of its members. Most organizational citizenship behaviors (OCBs) involving professional organizations are in addition to an individual's job. OCBs add to the organization through the preservation of an organization's social system and contribute, "to the maintenance and enhancement of the social and psychological context that supports task performance" (Organ, 1997, p. 91). McManus and Russell (1997) propose that mentors are role modelers of Organizational Citizenship Behaviors (OCBs) while reinforcing their protégés' OCBs. Donaldson, Ensher, & Grant-Vallone (2000) also found that individuals with high quality mentoring relationships engaged in significantly more OCBs.

### **Purpose of the Current Study**

The purpose of the current study is to investigate the impact that formal academic major advisors and other informal mentors can have on an individual's identification with a professional organization and their subsequent level of voluntary citizenship behaviors in that professional organization. The Industrial Organizational profession, and in particular members of the Society for Industrial and Organizational psychology, were the targeted population for my

research. Members of this organization are diverse with respect to their educational backgrounds and training as well as the tasks they perform on the job. The present study addresses McManus and Russell's (1997) call for mentoring research that examines the link between mentoring and Organizational Citizenship Behaviors. This study stands out in that participants will include individuals in various points in their professional lives including individuals recently graduated from their doctoral programs to professional retirees still active in the professional community. Additionally, this study has the unique opportunity to evaluate Industrial Organizational Psychology professional identity from a global perspective, as the participant pool contains perspectives from members across the world. This was a particular limitation discussed by Ryan and Ford (2010) who encouraged feedback from non-U.S. colleagues regarding their professional identities.

This paper will develop as follows. First, I will define professional organizations, as well as individuals' purposes for their OCBs in support of a professional organization. Second, I will review the pertinent professional identity literature. The topic of socialization will then be discussed as a way to bridge the research between professional identity development and mentoring. I will then review relevant literature on informal and formal mentoring with a particular emphasis on academic mentoring/advising. This will lead into a discussion of hypothesized gender influences related to mentoring and identity development. Next, I will review the research related to network diversity and how multiple mentors can influence the development of a professional identity. Next, the methodology and analyses performed to test my hypotheses will be summarized. Lastly, I will discuss the theoretical and practical implications of my research.



## CHAPTER TWO: LITERATURE REVIEW

### **Prosocial Behavior and Professional Organizations**

A professional organization can provide its members with information regarding issues facing the profession as well as groundbreaking research and practice. They also often monitor and endorse the education of individuals in that profession. Professional organizations are also excellent avenues for networking with others in the profession, increasing visibility, and can provide protection of the profession by monitoring educational training programs, accreditations, certifications, and can act as a very large “voice” to protect the members of the profession.

Involvement with one’s professional society is predominately volunteer-based. The success of a professional society depends on the initiative and effort of its members and requires them to persevere, preserve, and support the society’s goals and objectives. Thus, we can extrapolate the theory from the Organizational Citizenship Behavior (OCB) literature to professional organization involvement. Citizenship performance, “shapes the organizational, social, and psychological context that serves as the critical catalyst for task activities and processes” (Borman & Motowidlo, 1993, p. 71). These prosocial behaviors are representative of the ways in which individuals volunteer to promote an organization’s welfare (Brief & Motowidlo, 1986).

The purpose of or reason for an individual’s involvement in the professional organization will more than likely differ depending on the circumstance and the individual involved. Newcomers may interact with network partners for purposes of knowledge development,

information dissemination about the organization or career levels, social support, and emotional support. Senior members may provide multiple types of support at varying levels at different periods in time. For example, senior members can provide support during the socialization process about the culture and politics of a profession. They also can help a newcomer by establishing professional network ties and introducing them to influential members of the profession. Senior members have the unique opportunity to provide newcomers with their experiences and act as a guide for navigating the profession. Veteran organizational members set expectations that evolve as a result of group properties, norms, and behaviors (Katz & Kahn, 1978). Particularly for newcomers to a profession, important proficiencies that graduate students are expected to display beyond traditional content mastery are those skills that will enable the student to be successful as a future researcher, faculty advisor, teacher, colleague, consultant, and contributor to society. In other words, a graduate student must become a master learner throughout a graduate program in order to apply the necessary skills and knowledge upon graduation. The student's skills are likely to develop because of interaction with professional society members, thus enabling the student to move towards full participation in the current and future professional community. In order to determine why people engage in these professional volunteer behaviors, we can pull from the prosocial literature.

The area of prosocial behavior and volunteering has been a large area of research for psychologists particularly interested in determining the predictors for why people engage in helpful behaviors (Staub, 1978). Volunteering falls under the term *nonspontaneous helping* coined by Benson et al. (1980) which involves “planning, sorting out of priorities, and matching of personal capabilities and interests with the type of intervention” (p. 89). Helping as also been

found to relate to internalized social responsibility norms (Staub, 1974). Based on the theory of social-responsibility norms, we know that individuals help when they feel they ought to help because it is the right thing to do (Myers, 2010). Brief and Motowidlo (1986) cite role models as a key contextual antecedent to engaging prosocial behaviors. Role modeling and observational learning have been found to be critical determinates of prosocial behavior (Bryan & Test, 1967). A prosocial model can provide an individual with information regarding how to be helpful, what constitutes appropriate helping behavior, and what outcomes are possible (Aderman & Berkowitz, 1970). Another key component of helping behavior is to assume responsibility (Darley & Latané, 1968). A mentor as well as a profession must emphasize the importance of personal responsibility, particularly when it comes to professional engagement and volunteering behavior. If an individual does not assume personal responsibility, they are not likely to participate in helping behaviors. Clary et al. (1998) also propose a second volunteering purpose which involves the acquisition of new knowledge, opportunities for growth, personal development, and the ability to practice skills and abilities. In other words, some individuals engage in volunteer behaviors to further their own understanding of a profession (Gidron, 1978) and to network with others.

We know that there is a pervasive and universal moral code, the reciprocity norm, in which we are to help, not hurt, those who have helped us in the past (Gouldner, 1960). To the degree that individuals develop an identity that is strongly tied to a professional organization, they are likely to feel some reciprocity towards the organization for assistance they have been provided from members of that organization. The following section discusses the development of

identity in general terms and professional identity in particular prior to describing the manner in which one's mentors help foster professional identity through a process of socialization.

## **Identity**

While the focus of this paper is on professional identity specifically, it is important to discuss common theoretical conceptualizations of identity more broadly. Perhaps the most common has been personal identity (Zavalloni, 1983) with other researchers examining everything from organizational identity (Dhalla, 2007), ethnic identity (Yoon, 2011) and religious identity (Peek, 2005) to social identity (McLeish & Oxoby, 2011) and sexual identity (North, 2010). The literature has shifted to more process-focus models (e.g., Berzonsky, 1990), and rather than solely focusing on individual-level identity outcomes, researchers are increasingly interested in how individuals develop and maintain identities (Berzonsky, Ciecuch, Duriez, & Soenens, 2011). Other researchers have also begun pinpointing the environmental and social factors impacting identity development (see Chreim, Williams, & Hinings, 2007; Dobrow & Higgins; 2005; Ibarra, 1999; Pratt et al., 2006).

In recent years, professional identity theory has become of particular importance in various fields including education (e.g., Devos, 2010), counseling (e.g., Mellin, Hunt, & Nichols, 2011) and healthcare (e.g., Helmich et al., 2010) and organizational psychology (e.g., Ryan & Ford, 2010). According to Becker and Carper (1956), individuals develop work identities primarily through four key elements including the significance of their societal position, task

commitment, organization commitment, and occupational title. When an individual identifies strongly with these four elements, they are likely to struggle with the idea of changing professions.

There are typically three conceptualizations related to identity. At the micro level are social identity theory (social identities are shared) and self-categorization theory (individual identities are unique). At the macro-level is organizational identity (who we are as an organization). Identity theory is the third, overarching term for identity control theory and structural identity theory and is defined as “parts of a self-composed of the meanings that persons attach to the multiple roles they typically play in highly differentiated contemporary societies” (Stryker & Burke, 2000, p. 284). Identities are comparative and relational so they can change depending on one’s comparison standard (Ashforth, Harrison, & Corley, 2008, p. 328). Additionally, the saliency of the identity can vary over time and settings (Johnson, Morgeson, Ilgen, Meyer, & Lloyd, 2006).

“Identity is a self-referential description that provides contextually appropriate answers to the question ‘Who am I?’ or ‘Who are we?’” (Ashforth et al., 2008, p. 327). Identification is “the perception of oneness or belongingness to some human aggregate” (Ashforth & Mael, 1989, p. 21) and is both a state of being and a bottom-up process of becoming (Ashforth et al., 2008). Identity typically answers the question, “Who am I?” Identity is a dynamic and continuously developing and shaping as an individual engages in different behavioral, social, and task interactions (Bucher & Stelling, 1977).

Rousseau (1998) distinguishes identification as a cognitive state rather than affect or behavior. While identification can influence both behavior and emotion as well as other similar

concepts such as organizational citizenship behavior (positive extra-role behaviors) and affective commitment (affective reaction to an organization as a whole), situated and deep structure identification are distinct and represent a *cognition of self*, referring to an organization or firm (p. 218).

As an individual enters a profession, he/she possesses certain qualities that are either supported or rejected. These individual characteristics are typically either foundational elements of a pre-existing identity, incongruent with the profession and in need of adjustment, or can only be experientially developed (Ibarra, 1999). Pratt et al. (2006) surmised that identity change is incremental. Specifically, individuals stitch multiple identities together, augment current identities, or even temporarily utilize an alternate identity to adapt to changing circumstances or environments. These multiple identities can be nested (e.g., organizational development professor, professor in the management department, and professor at State University) or distinct (e.g., professor and consultant; Ryan & Ford, 2010). Projecting is the enactment of the identity whereas sensemaking is when an individual observes the reactions to their projection (Weick, 1995). Sensemaking is typically collective whereas sensegiving involves a social actor that provides claimed beliefs to members (Ryan & Ford, 2010).

Work orientation can also be used to explain the extent to which an individual adopts a professional identity (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). Specifically, we distinguish individuals with a *calling* work orientation whose greatest source of identity comes from their profession, from those with a *career* orientation, who, despite being intensely devoted to their work, vary in the extent to which it impacts the formulation their own individual identity (Wrzesniewski et al., 1997). It is also important to distinguish between a profession and an

occupation. A profession has an ethical code, specialized education, and formal association (Hickson & Thomas, 1969; Lammers & Garcia, 2009) with distinct knowledge whereas an occupation is an inclusive classification of jobs with similar characteristics (e.g., *scientist*, *educator*, or *physician*).

According to Tajfel (1982), two components are critical for achieving the stage of identification, a cognitive one (membership awareness) and an evaluative one (establishing a value connotation to this awareness). In addition to these two, a third component often discussed is an emotional investment in the evaluations and awareness. Further, characterizations of intragroup relationships typically include member-perceived similarity, social cohesion/mutual attraction, mutual esteem, emotional empathy/contagion, cooperation and altruism, and behavioral/attitudinal uniformity (Turner, 1982, p. 29).

Rousseau (1998) discusses two levels of identification. Situated identification is one in which individuals manifest an identification using situational cues. As long as the environmental cues are present, the identity will be maintained. Deep structure identification occurs when a professional relationship amends an individual's mental model by incorporating the profession or organization into one's self-schema. This deep structured identification often remains stable over time and across situations and roles. Identity enrichment takes this one-step further and involves, "retaining the basic tenets of one's professional identity but developing a deeper and more nuanced understanding" (Ryan & Ford, 2010, p. 245). Another key factor in the espousal of a professional identity is the apparent distinction and status augmentation of that identity (Walsh & Gordon, 2008). It is argued that professions or organizations which offer greater distinction will be a stronger source of identity (Ryan & Ford, 2010).

The cognitive modifications of identity formation are fundamentally linked to dynamics of the professional relationship longitudinally, including the definition of psychological contracts (Rousseau, 1995). A psychological contract is defined as the, “shared understandings and reciprocal contributions for mutual benefit” (Dabos & Rousseau, 2004, p. 52) and typically develops during socialization and interaction with others in the organization (Rousseau, 2001). Dabos and Rousseau (2004) note establishing a psychological contract between individuals can aid in the development and positive maintenance of a relationship, especially in formal mentorships. Organizational identification is a critical outcome of a psychological contract (Restubog, Hornsey, Bordia, & Esposito, 2008) and suggests that individuals identify with organizations whose identity is similar to their personal identity (Ashforth & Mael, 1989; Dutton, Dukerich, & Harquail, 1994). When there is congruence between these two identities, individuals will integrate the organization’s identity into their individual social identity. As a result of this identification, an individual begins to internalize the performance, both success and failure, of the organization or profession. When this internalization occurs, an individual feels a stronger sense of control and responsibility and will be more likely to engage in citizenship behaviors and become more committed (Riketta, 2005; Zagenczyk, Gibney, Few, & Scott, 2011).

Identification can occur as either a top-down or a bottom-up process. Common antecedents influencing bottom-up formation of identity include the need for identification (Glynn, 1998; Kreiner & Ashforth, 2004; Mayhew, 2007), person-organization fit (Cable & DeRue, 2002), organizational tenure (Riketta, 2005), gender (Lucas, 1997), biodata (Mael & Ashforth, 1992), need for affiliation (Wiesenfeld et al., 2001), and collectivism (Gundlach, Zivnuska, & Stoner, 2006).



By contrast, the top-down process focuses on how professions or organizations impact individuals (Cardador & Pratt, 2006) whereas the bottom-up process focuses on the actions, feelings, and thoughts individuals use to navigate the borders between the self and the profession (Harquail, 1998). Common antecedents influencing the top-down formulation of identification include the distinctiveness and prestige of an organization or profession (e.g., Dutton et al., 1994; Mael & Ashforth, 1992; Smidts, Pruyn, & van Riel, 2001; Wan-Huggins, Riordan, & Griffeth, 1998), forms of attachment such as autonomy (Russo, 1998) and support (Wiesenfeld, Raghuram, & Garud, 2001). Socialization through developmental relationships with organizational insiders is a primary support mechanism through which individuals develop their professional identities. Mentoring and advisory relationships are special types of these developmental relationships that are expected to provide particularly salient cues to newcomers about desired behaviors and professional expectations.

### **The Process of Socialization**

Socialization is “the process by which an individual comes to appreciate the values, abilities, expected behaviors, and social knowledge essential for assuming an organizational role” (Louis, 1980, pp. 229-230). It typically occurs in three phases including anticipatory, encounter, and settling-in (Feldman, 1981; Wanous, Reichers, & Malik, 1984). Before a newcomer enters an organization, she sets expectations that will subsequently be either validated or proven false (anticipatory phase). Once the newcomer has entered the organization, she learns

job tasks, procedures, and practices, and role clarification through organizational member interactions (encounter phase). When the newcomer begins to feel at ease in the organization and adjusted to organizational and relational demands, she can then begin to focus on work-life balance (settling-in phase). Ashforth (2001) characterized organizational socialization tactics as collective, sequential, fixed, serial, and divestiture. Organizations may group all newcomers together to expose them to similar experiences via orientations (collective), or they may expose newcomers to a strict sequence of steps (sequential). Organizations may also provide a schedule for the supposition of a role (fixed), or have an expert member serve as a role model or guide for the newcomer (serial). Another option is for the organization to try to uncover any of the newcomer's incoming identities that conflict with the role or organization's desired identity (divestiture). The socialization literature has reached the consensus that identity changes as roles change. However, there has been a dearth in the research regarding the *process* by which this professional identity evolves (Ibarra, 1999).

Specifically related to mentoring and socialization, Ostroff & Koslowski (1993) found that organizational newcomers with a mentor learned more about organizational politics and practices than did newcomers without a mentor. Ostroff and Koslowski also concluded that the influences of mentoring begin much earlier in the socialization process than others have suggested (e.g., Kram, 1985 suggested career-enhancing effects do not occur until after socialization is completed). Many researchers have suggested the significance of mentoring relationships during early organizational entry for the adjustment and socialization of newcomers (Allen, McManus, & Russell, 1999; Burke, 1984; Ostroff & Koslowski, 1993). Thus, mentoring will be discussed in the next section.

## **Mentoring**

Mentors are individuals with expertise and experience that typically provide support to contribute to the professional advancement of more novice individuals (Kram, 1985). Mentoring programs have been utilized in organizations for many years, (Allen, Eby, & Lentz, 2006; Allen, McManus, & Russell, 1999; Godshalk & Sosik, 2003; Ragins & Cotton, 1999; Sanchez, Bauer, & Paronto, 2006) often to ease the socialization process (Allen, Eby, Poteet, Lentz, & Lima, 1999; Ostroff & Kozlowski, 1993). Mentors are individuals that possess developed knowledge and experience and classically provide protégés (novice individuals) with the support necessary for protégé career advancement (Kram, 1985).

Two main functions of mentoring typically discussed in the literature are career and psychosocial support. Career functions such as exposure, giving challenging assignments, sponsorship, coaching, and protection, are those “aspects of the mentoring relationship that primarily enhance career advancement” (Kram, 1983, p. 614). Psychosocial functions such as friendship, confirmation, role modeling, acceptance, and counseling, are those “aspects of the relationship that primarily enhance sense of competence, clarity of identity, and effectiveness in the managerial role” (Kram, 1983, p. 614). Bandura’s (1986) social learning theory can be used to explain how protégés learn from their mentors. When this theory is applied to a mentoring relationship, it suggests that individuals learn from their mentors through the two primary mechanisms of instrumental and psychosocial support (Donaldson et al., 2000). Particularly

relevant to identity development, Scandura (1992) posited role modeling as a distinct third function of mentoring behaviors. Role modeling is said to include behaviors in which the protégé identifies with and subsequently imitates the behavior of the mentor who is a particularly powerful referent if the protégé respects and admires him/her. Mentoring research emphasizes the mentor as a behavioral role model (e.g., Allen, Eby, & Lentz, 2006) it is likely that a norm of participation and volunteering is something that a mentor passes on to his or her students.

Additionally, mentoring has been associated with increased organizational commitment (Aryee & Chay, 1994; Payne & Huffman, 2005), citizenship behaviors (Donaldson et al., 2000), decreased stress (Ülkü-Steiner, Kurtz-Costes, & Kinlaw, 2000), higher satisfaction (Allen et al., 2004; Seibert, 1999), and increased self-esteem (Koberg, Boss, & Goodman, 1998). Research has also highlighted the many benefits that mentors can experience as well. For example, mentors often report feeling a sense of professional and personal accomplishment (Bozionelos, 2004; Eby & Lockwood, 2005; Ragins & Scandura, 1999). They have also reported personal fulfillment as being a key benefit and may experience intrinsic satisfaction because they have the ability to pass on their experience and expertise to a protégé (Levinson et al., 1978). Mentors also are likely to be given recognition and the act of mentoring another can contribute to the mentor's subjective career success (Bozionelos, 2004).

Another desired outcome of mentoring is professional identity development. A mentor can be instrumental in educating their protégés about the unwritten rules of their profession by sharing their experiences and suggestions (Johnson, 2003) and passing on their professional legacy (Healy & Welchert, 1990). Research has also found that a faculty mentor's prestige can influence the employment, publication rate, and recognition of his/her protégé (Crane, 1965). In

fact, Long (1978) found that a faculty mentor's citation record can also influence their student's number of publications, citations, and job placement achieved up to three years *after* the student completes their doctoral training.

Bogat and Redner (1985) argued that a mentor's professional network is a large determinant of their student's professional network. The manner in which professional identity is defined by a protégé and the professional organizations to which it extends should be dependent on the ties his/her mentor has to such organizations. If one's mentor views membership in a particular professional organization to be important and if he/she models active OCBs in support of that organization, the protégé should identify more strongly with that organization as a result. This should be true of both formally assigned mentors and of informally developed mentoring relationships. The next section will distinguish between formal and informal mentoring.

### **Formal Mentoring Versus Informal Mentoring**

The first distinguishing factor between formal mentoring and informal mentoring involves the initiation of the relationship. In informal relationships, mutual identification between the mentor and protégé occurs. In other words, both individuals often play a role in the establishment of the relationship. "This mutual identification leads to the often-cited intensity of the informal relationship and the parallels drawn between mentoring and parent-child relationships" (Ragins & Cotton, 1999, p. 530). Mentors are typically looking for an individual to pass on their professional knowledge, to mold, and develop from a novice employee into

seasoned professionals, much like themselves, and often they specifically seek out high performing individuals (Olian, Carroll, & Giannantonio, 1993) with growth or advancement potential. Protégés are not passive in this process. Instead, they too are seeking someone who will fit their desired mentor characteristics. Specifically, protégés classically seek an individual who possesses the expertise or prowess they are hoping to garner. Individuals with strong ties in the professional community are often at the top of the list. As these informal relationships begin to blossom and develop, mentors and protégés in successful mentorships often report a mutual attraction and understanding from their partner from early on in the relationship. The initiation of this informal relationship is characterized by significantly more initiation flexibility than in formally matched relationships (Ragins & Cotton, 1999). In formal mentoring, protégés are typically assigned to a mentor. If there is no screening or empirical matching schema used to pair mentors and protégés, protégés may be placed with unqualified mentors, or with mentors who do not align well their goals and expectations (Ragins & Cotton, 1999). Research has shown formal mentoring relationships are more successful if participants feel they had a role in the match making and in many programs participants are given this opportunity (e.g., Allen, Eby, & Lentz, 2006; Kendall, Smith-Jentsch, Hudson, & Peuler, 2008).

In addition to the initiation of a mentoring relationship, there are also differences in the structure of informal and formal mentoring relationships. Formal mentorships tend to be shorter and tend to be more structured than informal relationships (Ragins & Cotton, 1999). Further, the goals of informal relationships often transform over time and acclimate to the career needs of the individuals (Ragins & Cotton, 1999). Additionally, a contract typically specifies the location, communication mode, and frequency of contact for formal relationships and mentors and

protégés usually do not have a say in how it is structured. In formal programs the needs of the organization can come before the needs of the individual. For instance, organizations have job requirements, program standards, and reputation concerns to consider. In this case, not only is the mentor in a developmental mentoring position, but he or she is also in a performance assessment and supervisory position. The goals of each of these positions are often in direct conflict with one another which can put added strain on the relationship (Fullick, Smith-Jentsch, & Bencaz, 2012).

There are also differences in relation to processes involved in informal and formal mentorships. More specifically, if the match between mentor and protégé in a formal relationship is ill fitting, or if the mentor and protégé have dissimilar career tracks, the mentor may be less equipped to provide effective role modeling and/or career counseling for their protégés. Further, formal mentoring relationships are much more publicly observable than informal relationships are, and thus mentors may be more uncomfortable about providing career development support that could be interpreted as preferential treatment by other organizational members (Ragins & Cotton, 1999).

In addition to the issues discussed above, informal and formal mentoring relationships tend to have different relationship outcomes. More specifically, due to the nature of informal relationships, individuals tend to have more time to build career development and psychosocial functions. It has been posited that in informal relationships, these functional benefits can also transcend the interval of the mentorship (Kram, 1985) and that professional interventions from informal mentors are likely to have more time to culminate than formal mentors (Ragins & Cotton, 1999). When it comes to formal relationships, protégés may perceive that, instead of a

personal commitment to the protégé, their mentors spend time with them because of an obligation to the mentoring program and the organization. These perceptions may limit the development of trust in the relationship and the provision of psychosocial functions. Moreover, in informal mentorships, mentors are often more concerned with the long-term career needs of their protégés. Alternatively, formal mentorships usually are created to focus on career goals that are short-term and relate to the protégé's current position (Ragins & Cotton, 1999). Effective formal relationships can even extend beyond the timeframe of the program to become informal relationships that are longer lasting and those protégés are even more likely to become mentors themselves (Allen, Russell, & Maetzke, 1997; Ragins & Cotton, 1993).

Many theories can be utilized to help explain the differences between formal and informal mentorships. Mentoring Theory (Kram, 1983; Levinson et al., 1978) notes that key interpersonal processes associated with the development and sustenance of mentoring relationships include mutual liking, identification, and attraction. If the mentor and protégé do not have input into this match, it can spoil the relationship. Mentoring theory also states that the mentorship must meet both individuals' needs. In formal programs in which mentors are forced to participate, mentors may not get their needs met, particularly if they view their assigned protégé as a poor fit. Mentoring theory also says that protégés should develop a sense of personal competence and professional identity. If the mentor or protégé sees the relationship as strained, it can be detrimental to their self-perceived competence and identity (Allen, Eby, & Lentz, 2006).

Formal and informal mentorships are potentially very different in how people view similarity (similarity in gender in informal does not mean you will get the same findings in formal because there are different things). As stated in Allen, Eby, and Lentz (2006), research



generally indicates that formal mentoring is not as effective as is informal mentoring (Chao, Walz, & Gardner, 1992; Ragins & Cotton, 1999; Wanberg et al., 2003). Ragins and Cotton (1999) found that protégés in informal mentorships reported receiving greater satisfaction and career development support from their mentors (e.g., challenging assignments, sponsorship, protection, coaching, and exposure) than protégés in formal mentorships reported receiving. However, formal mentoring may be more effective at certain things than at others. One thing it may be particularly good at is fostering commitment and engagement towards the organization or profession.

A formal mentoring relationship is said to promote the espousal of an organization's values (Viator & Scandura, 1991). This in turn facilitates identification and commitment with the organization (Payne & Huffman, 2005). Again, formal mentors typically have a commitment to the organization and the goals of a formal mentorship are often not just to aid the protégé, but also to benefit the organization. Formal mentors act in the best interest of the organization whereas informal mentors act in the best interest of the protégé. The formal mentor is an agent of the organization and the positive feelings and reciprocity one feels toward his/her mentor may be projected onto the organization which he/she is affiliated.

In sum, formal relationships are distinguished from informal relationships in many ways. For example, in formal mentoring relationships, protégés are often assigned to a mentor, the relationship is often maintained and monitored by the department or by an established program in the organization, and the goals of formal mentoring relationships are often pre-specified and focused on supporting the organization or profession sponsoring the formal program. Academic

mentoring is a specific type of formal mentoring relationship and is a key variable in this dissertation. The next section will discuss the unique characteristics of this type of relationship.

## **Academic Mentoring**

Academic mentoring typically involves the establishment of a “dynamic, emotionally connected, and reciprocal” relationship between the faculty mentor and student protégé (Johnson, 2003, p. 129). A *major advisor* is “the faculty member who has the greatest responsibility for helping guide the advisee through the graduate program...” this individual has also been called, “major professor, committee chair, and dissertation chair” (Schlosser & Gelso, 2001, p. 158). In academic mentoring relationships, schools typically layout expectations and guidelines, educational goals, and requirements for mentors and protégés. For instance, Universities have graduate requirements, program standards, and reputation concerns to consider. In this case, not only is the academic advisor in a developmental mentoring position, but he or she is also in a performance assessment and supervisory position.

Faculty advisors during graduate education not only facilitate technical knowledge development, they can also aid in the professional development and socialization of students. When an individual is finishing his or her education, they are typically also developing a sense of professional identity. A major advisor and other informal mentors can be a rich source of information and behavioral role modeling that can influence that identity development. More specifically, the present study is particularly interested in examining the role of academic

mentoring in the professional identity development of an individual. Again, it is important to point out, however, that there are differences in formal academic mentoring relationships. Some advisors are concerned with the long-term career needs of their protégés beyond graduation, and begin grooming them for their desired career paths very early on in their graduate programs.

Thus, academic mentors play a pivotal role in establishing professional network contacts and ties for students (Bogat & Redner, 1985). A student's graduate advisor is said to even be one of the most important people a student works with during the course of their program (Barnes, Williams, & Archer, 2010; Schlosser & Gelso, 2001). Researchers have also emphasized role modeling by the faculty advisor as having a positive effect on the student (Magoon & Holland, 1984). Some have even described this time in graduate school as a "period of infancy" (Bruss & Kopala, 1993, p. 686) and liken the major advisor much to the role of a parent or primary caregiver of a child. During this time, the advisor facilitates growth and nurtures the student to help them develop a sense of professional identity. A student typically enters the graduate program naively and unsure of what to expect.

Thus, the faculty advisor is an instrumental guide who can help the student navigate the program. "Mentoring not only enhances initial career advancement, but can have long term effects on professional development as well" (Wright & Wright, 1987, p. 205). Reskin (1979) found that collaboration with a sponsor, or academic advisor, was related to both their graduate school productivity and their post-doctoral productivity as well. Bloom, Propst, Hall, and Evans (2007) stress that graduate advisors should serve as role models. Their protégés often learn by observing how their advisor deals with various frustrations, situations, and problems. While there has been an expansive literature regarding undergraduate advising relationships, the literature

examining the relationship between a faculty advisor and his/her graduate student, has been scant (see exceptions: Barnes et al., 2010; Bloom et al., 2007; Schlosser & Gelso, 2001). The current study attempts to address this gap.

Pfund, Pribbenow, Branchaw, Lauffer, and Handelsman (2006) emphasized the value of faculty mentoring citing it as “one of the most important skills” (p. 473) that influences not just research output but also fosters high quality training for students. This advisory relationship is often posited as a form of teaching that focuses mostly on developing the student (Ender, Winston, & Miller, 1982; Crookston, 1972; O'Banion, 1972; Smith & Allen, 2006). Researchers have found that these relationships are most successful when they possess both developmental elements (e.g., providing decision-making opportunities and choices for advisees) as well as prescriptive elements (e.g., telling them what they need to do and know; Smith & Allen, 2006).

Thus, the following was hypothesized:

**Hypothesis 1:** *Individuals whose academic advisors have been more actively involved in a professional organization through voluntary participation in citizenship activities within that organization will report a stronger identification with the organization than will individuals whose academic advisors were less active in the organization.*

Mentors, and particularly academic mentors, often invest time and energy in individuals expecting that individual to also invest in the social capital of the profession. Specifically, professions contain networks of individuals. In order for those professional networks to flourish and thrive, you must maintain trust, cooperative actions, supportive connections, and information flow (Myers, 2010). The reciprocity norm helps to maintain the health of professional networks. Particularly in stances where helping behavior is made public, we see reciprocity in full force. An advisory relationship is often very visible to not only the academic program, but also the

profession. In a formal, academic mentoring relationship, for example, the goals of the relationship are clear: develop the student and make sure he/she graduates with adequate knowledge and experience to be successful and to present the program and the profession well. Thus, if an advisor is particularly helpful in fostering your development, the expectation to return the favor and “pay it forward” to others and to the profession becomes quite salient. Prosocial models also promote helping behaviors (Bryan & Test, 1967; Haidt, 2003; Rushton & Campbell, 1977).

**Hypothesis 2:** *Individuals whose academic advisors are more actively involved in voluntary citizenship activities within a professional organization will engage in greater OCBs within that organization themselves.*

**Hypothesis 3:** *The relationship between the level of OCBs one’s academic mentor exhibits in a professional organization and the OCBs the individual later exhibits in the same organization will be mediated by the degree to which the individual identifies with the organization.*

Until now, I have focused more generally on the influences academic mentors and informal mentors can have on the development of an individual’s professional identity. Specifically, I have discussed role modeling and social learning theory (Bandura, 1986) and how observing a professionally involved role model is likely to positively impact the protégé’s organizational citizenship behaviors. A critical component of the success of role modeling is the gender similarity of that model. The more similar an individual is to the role model (e.g., personality, education, gender, race), the more likely he or she is to imitate the modeler’s performance (Gould & Weiss, 1981; McCullagh, 1987; Meaney, Griffin, & Hart, 2005). Gender is a particularly salient cue in this regard and has been investigated studied in numerous

mentoring studies. Thus, the next section will describe the specific influence gender similarity between a protégé and mentor can have.

## **Gender Similarity and Mentoring**

The gender composition of a mentoring relationship (male/female, male/male, female/female) seems to matter. Specifically, researchers have found that same-gender mentor-protégé dyads tend to have more psychosocial and career support as well as reports of higher relationship quality when compared with cross-gender mentorships (e.g., Koberg et al., 1998; Ragins & McFarlin, 1990). Ensher and Murphy (1997) surmised that in same-gender dyads a greater degree of interpersonal comfort is likely to exist. In fact, Allen, Day, and Lentz (2005) found that higher interpersonal comfort reported by protégés in same-gender mentorships than in cross-gender mentorships. In addition, interpersonal comfort was the explaining mechanism for the relationship between gender similarity and mentoring support provided.

While the research seems to support same-gender dyads as being most affective, it is not always easy to seek out same-gender relationships when there are often more male mentors available than female mentors. A particular challenge for females has been finding a mentor both within a profession and within a department (Cawyer, Simonds, & Davis, 2002). Shapiro, Haseltine and Rowe (1978) discuss the shortage of female mentors in academia, and business, among other professions. They also point out that because mentors often use things like gender to select protégés they identify with, many women may be not be selected. Casto, Caldwell, and

Salazar (2005) surmise that, “Such access is especially vital in academia. Women have access to graduate programs, yet the major obstacle they face is advancement, both through the academic programs and professionally” (p. 331). Females may also feel compelled to “overproduce” in order to substantiate their capabilities and authenticate their position in an organization (Gilbert & Rossman, 1992).

Female academics in particular face mounting challenges regarding career advancement and development. In response to the struggles female academics may face, Gardiner, Tiggemann, Kearns, and Marshall (2007) evaluated the mentoring implications for females over a seven-year period. Specifically, they found that female academics who received mentoring had higher rates of promotion and grant funding, were more likely to stay with the university, and had a more positive global sense of confidence as an academic. Not only does mentoring have positive outcomes for protégés as discussed above, but Gardiner et al. (2007) concluded that mentoring was “an effective means of improving gender equality in academic positions within universities” (p. 438) and can have significant returns on investment for not just faculty but the university as well. In addition, Gilbert (1985) found that female graduate students rated their relationship with a faculty role model as an important factor in their professional development, and more so than male graduate students did. Female students also focused on lifestyle, values, and personal attributes as important factors they used to select their role model. Thus, we know that there are systematic gender differences that can influence the mentoring relationship as well as professional development.

The current study has the unique opportunity to examine gender differences in mentoring relationships utilizing a diverse, global sample of Ph.D. professionals. Building strong network

ties within a profession is critical for growth and success. Due to the theoretical and empirical support for behavioral role modeling (e.g., Donaldson et al., 2000; McManus & Russell, 1997), it is posited that the degree of OCBs by an individual's academic mentor in a professional organization will be positively related to the OCBs that protégé later directs toward professional organization. We know from the role modeling literature that the more similar an individual is to the role model (i.e., same gender), the more likely they are to mimic the modeler's behavior (Gould & Weiss, 1981; McCullagh, 1987; Meaney, Griffin, & Hart, 2005). For example, Meaney et al. (2005) found that female participants who observed a female role model transferred significantly more learning strategies than participants who observed a male role model. Williams-Nickelson (2009) discovered that female graduate students reported a lack of female mentors, and that those with male mentors often reported a lack of attention to their unique needs as a woman in the profession. Williams-Nickelson argued that, "a mentor must be able to see the mentee as the mentee would like to see him- or herself" (p. 278). I argue that it is more difficult for cross-gender relationships to do this. If you are of the same gender, you are more likely to possess similarities and understand the integration of professional and personal goals. A female mentor who has experienced struggles during her career would be more adept at advising her protégé to expect certain professional challenges and expectations that a male mentor has never experienced. As Williams-Nickelson states, "Participating in relationships that purposely model the negotiation of behavior in several roles is a necessary and fundamental aspect of mentoring" (p. 278). Based on the research involving gender similarity in mentoring relationships, the following relationship is hypothesized.



**Hypothesis 4:** *The positive relationship between the level of OCBs one's academic advisor has engaged in within a professional organization and the advisee/protégé's identification with that organization will be stronger when the advisor and advisee are the same gender than it will be when the advisor and advisee are different genders.*

It is also important to realize that many individuals have access to multiple mentors throughout their careers. The next section will specifically examine how having access to multiple, diverse mentors can aid in the development of a professional identity.

### **Multiple Mentors and Network Diversity**

Roccas and Brewer (2002) suggest that when evaluating their multiple in-group identities and creating personal representations, individuals vary in their degree of complexity. They developed the construct of social identity complexity which is defined as “the nature of the subjective representation of multiple in-group identities” (pp. 88-89). Individuals often belong to multiple groups at the same time. Social identity complexity realizes that an individual's memberships are not mutually exclusive and accounts for the differing perceived overlaps that exist between those groups when an individual is forming his/her identity. If an individual perceived a high degree of overlap, they often merge those groups to form a single integrated identification. However, if the individual perceives his/her memberships to be more distinct and not overlap, then they create a richer and more complex identity. In a similar way, for individuals with multiple mentoring relationships, professional identity should be affected by the degree to

which their multiple mentors vary with respect to their specific work setting yet share a common professional identity.

The dynamics of the workforce have shifted and almost require individuals to seek out multiple diverse mentors in order to grow and develop. It is becoming more and more difficult for a single individual to possess all of the necessary knowledge for various stages of professional development and growth. Thus, researchers are beginning to examine the implications of possessing mentor “networks.” As de Janasz, Sullivan, and Whiting (2003) point out, “Today, people have careers characterized by flexibility, project work across multiple firms, and an emphasis on learning rather than promotions and salary increases” (p. 80). With the emphasis on adaptation and continuous learning, it seems the only way to survive is to network with multiple mentors. Often, individuals diversify and seek guidance outside their organization or school to acquire the necessary knowledge to develop professionally. If an individual has multiple influential mentors during his/her professional development, it is likely that he/she has developed strong social networks in the profession and is actively participating in opportunities to develop and benefit the professional society. Individuals who have multiple mentors possess a “toolkit” of resources to keep up with rapidly changing knowledge requirements and technologies. “A collection of mentors is invaluable, providing different perspectives, knowledge, and skills while serving multiple mentoring functions. They can provide emotional support or protection from political enemies in a way no one individual can” (de Janasz et al., 2003, p. 81).

Continuing with the idea of knowledge development and adaptation, DeFillippi and Arthur (1994) theorized that personal competencies emerge in today’s workplace and that these

competencies “are embodied in people’s beliefs and identities (know-why), skills and knowledge (know-how), and networks of relationships and contacts (know-whom)” (p. 320). They theorize that these competencies are applied and adapted to erratic professional settings by individuals, a concept they term *the intelligent career*. De Janasz and Sullivan (2004) applied the intelligent career to professorship and argued that individuals will develop relational ties in order to develop the three knowledge competencies. The approach to professional development is thus becoming more and more learner-centric with a focus on constant personal knowledge adaptation and acquisition. In response to the ever-changing professional atmosphere in which individuals are less likely to spend a lifetime with a single organization, individuals have to look beyond a single organization’s needs to encompass an overarching personal reputation and identity that spans the *profession* rather than a single organization to which he/she is employed. It is important to emphasize that the need for mentoring continues through the career lifespan. “As individuals change career directions and need to develop new skills and abilities to support changes in their self-concept, they will need to seek out new mentors to help guide them” (de Janasz et al., 2003, p. 83).

Kram (1985) first suggested the notion of multiple mentors. She suggested that protégés need various mentors sequentially during different phases of their career progression. Later, mentoring was conceptualized as a network of relationships that traverse a protégé’s professional career (Higgins & Kram, 2001). Most theory regarding multiple mentors has focused on the end of a mentorship. In other words, when a mentoring relationship has run its course, the protégé typically moves on and seeks a new mentor to fulfill his or her development needs (Kram, 1983). Protégés may preserve a peer-like relationship with their past mentors while they are developing

new mentorships (Baugh & Scandura, 1999). Lankau and Scandura (2002) state that the intensity of professional ties and mentoring relationships that develop in these networks shape career outcomes.

Burlew (1991) developed a conceptual framework based on the principle that “mentoring is not a single event in the life of a worker but rather several events with different levels of mentoring” and that “each of these levels requires a different type of mentor with different types of skills and knowledge” (p. 220). The *Training Mentor* is someone who helps an individual adjust to a new environment, provide tips and guidelines for improving performance, and act as a guide who possesses critical job knowledge. The *Education Mentor* has a broader role than the Training Mentor and possesses foresight and knowledge regarding how to advance and progress through the profession. The Education Mentor is future-oriented and can help with networking and career planning and is often a source of social support to the protégé. Lastly, the *Developmental Mentor* is someone who is growth-oriented and focuses more on helping the protégé to reach self-actualization by facilitating the protégé’s examination of his or her strengths and weaknesses in both the professional and personal realms. The Developmental Mentor is someone who can provide sage advice to increase confidence and productivity. Burlew’s (1991) focus is more on recommendations for how to train professionals or counselors to be occupy each of these roles for their clients rather than on the protégé side or how these types of mentors affect concrete protégé outcomes.

In these changing professional times and boundaryless work, mentoring networks are critical, as a single mentor can no longer meet a protégé’s needs. For example, Mezaias and Scandura (2005) developed a theory of multiple mentoring to assist expatriate employees (i.e.,

individuals sent by their employer to work in a foreign country). In this particular case, they proposed that expatriates need several concurrent mentors to aid their adjustment, for example by keeping a connection at their home country and establishing a new connection with someone in their current host country. Thus, one mentor could keep them up to date with the happenings going on at home, whereas another mentor could provide support and assist to socializing into the new location both socially and professionally. In her dissertation which examined this framework, Littrell (2007) found that mentoring functions from home and host country mentors accounted for unique variance in socialization and job satisfaction. Her findings indicated that home and host country mentors provided unique mentoring functions to expatriate protégés. Similarly, I expect that when individuals have informal mentors in addition to their formal academic mentor that are also members of the same professional organization this should contribute uniquely to their professional identification with that organization.

Based on this, the following was hypothesized:

**Hypothesis 5:** *The with a greater number of informal mentors in addition to their academic advisor who are members of the same organization will report a stronger identification with that organization than will those with a lesser number of additional informal mentors within the organization.*

Although previous authors have theorized the presence of multiple mentoring relationships (Burlew, 1991; Ibarra, 1994; Kram, 1988), only one study to date has empirically examined the outcomes for protégés with multiple mentors in comparison to individuals with a sole mentor or no mentor (Baugh & Scandura, 1999). Baugh and Scandura (1999) found that individuals with one or more mentors had greater organizational commitment and heightened

career expectations. Based on the same arguments regarding the advisor's OCBs, I expect the informal mentors' OCBs in support of the professional organization to be important as well. If an individual has multiple mentors but they are not active in the society it may reinforce the wrong message. Thus, the benefit of having informal mentors in addition to one's formal academic advisor should be dependent on the degree to which those additional mentors engage in OCBs in support of a professional organization. The following was hypothesized:

**Hypothesis 6:** *The level of OCBs of one's informal mentors in a professional organization will moderate the influence of the number of informal mentors on an individual's identification with that organization.*

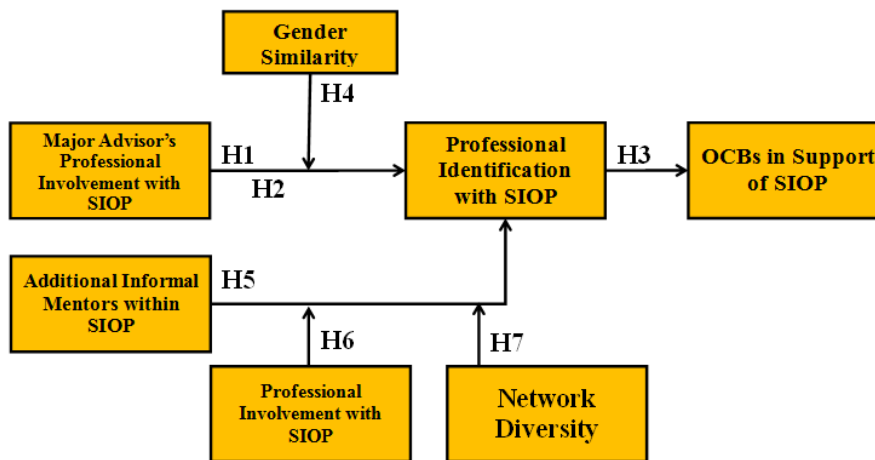
Having multiple mentors who are diverse but share a superordinate identity such as professional society membership in the same professional organization should foster a protégé's identification with that organization to a greater degree than having multiple mentors who are members of that organization and are homogeneous with respect to their social networks. If an individual has diverse mentors who share a superordinate professional identity he or she should view that identity as more broadly relevant to them rather than being tied more narrowly to a specific occupational choice (e.g., academia). While mentors can be diverse with respect to a number of dimensions, a major distinction within our field is the scientist-practitioner split (see Brooks, Grauer, Thornbury, & Highhouse, 2003; O'Neill, 2008). In the present study, I examined whether the diversity of one's multiple mentors with respect to this distinction moderated the influence of having multiple mentors. Specifically, I expected that having a balance of scientist and practitioner mentors would be most effective.

Pulling from the training literature, capitalizing on stimulus variability (in this case, mentors) is based on the idea that individuals transfer behaviors or attitudes more effectively when an assortment of pertinent stimuli are used (Baldwin & Ford, 1988). Researchers in this area argue that when a trainee is exposed to several examples of a concept, that individual will be more likely to adapt that concept to new situations because it strengthens their understanding and knowledge of the area (Baldwin & Ford, 1988; Taylor, Russ-Eft, & Chan, 2005). One study concluded that when individuals were given different examples, learning was enhanced versus only seeing one example over and over again (Shore & Sechrest, 1961). Kazdin (1975 as cited in Baldwin & Ford, 1988) specified that using multiple, differentially supported stimuli avoids training being associated with a single instance or individual and thus transfer of learning is improved. It can thus be surmised that multiple diverse mentors work much the same way. Meaning, if you have multiple mentors from diverse backgrounds each giving you information about your profession and modeling OCBs toward that professional organization, it can only strengthen the sense of professional identity. More specifically, the more balanced one's set of mentors is with respect to their professional setting, the stronger the relationship between one's number of mentors and their professional identity should be.

**Hypothesis 7:** *Having multiple mentors within a professional organization will be more strongly associated with their identification with that professional organization if their multiple mentors represent a more balanced mix of professional networks (e.g., academic/practice) than if their mentors are more homogeneous in this regard.*

## **Conclusions**

In summary (see Figure 1), I expect that those who have both an academic advisor and one or more informal mentors that are actively involved in the same professional organization will express stronger identification with that organization and will ultimately demonstrate greater OCBs in the organization themselves. The network diversity of one's multiple mentors is also expected to be positively related to an individual's identification with a professional organization in which those multiple mentors are members because it increases the salience of the identity with the professional organization. Those with academic mentors who are more active in a professional organization should be more active in that organization themselves and this relationship should be partially mediated by the individual's identification with the professional organization. Lastly, due to the research underscoring the influence gender similarity has on mentoring as well as professional development and identification, gender similarity is expected to moderate the relationship between major advisor professional OCBs and professional identity. More specifically, a mentor's OCBs in a professional organization should have a stronger impact on his/her protégé's professional identity when the mentor and protégé are of the same gender.



**Figure 1. Hypothesized Relationships between Study Variables**



**Table 1.** Summary of Study Hypotheses

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H1	<i>Individuals whose academic advisors have been more actively involved in a professional organization through voluntary participation in citizenship activities within that organization will report a stronger identification with the organization than will individuals whose academic advisors were less active in the organization.</i>
H2	<i>Individuals whose academic advisors are more actively involved in voluntary citizenship activities within a professional organization will engage in greater OCBs within that organization themselves.</i>
H3	<i>The relationship between the level of OCBs one's academic mentor exhibits in a professional organization and the OCBs the individual later exhibits in the same organization will be mediated by the degree to which the individual identifies with the organization.</i>
H4	<i>The positive relationship between the level of OCBs one's academic advisor has engaged in within a professional organization and the advisee/protégé's identification with that organization will be stronger when the advisor and advisee are the same gender than it will be when the advisor and advisee are different genders.</i>
H5	<i>The with a greater number of informal mentors in addition to their academic advisor who are members of the same organization will report a stronger identification with that organization than will those with a lesser number of additional informal mentors within the organization.</i>
H6	<i>The level of OCBs of one's informal mentors in a professional organization will moderate the influence of the number of informal mentors on an individual's identification with that organization.</i>
H7	<i>Having multiple mentors within a professional organization will be more strongly associated with their identification with that professional organization if their multiple mentors represent a more balanced mix of professional networks (e.g., academic/practice) than if their mentors are more homogeneous in this regard.</i>

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## CHAPTER THREE: METHOD

### Participants

Participants were 334 individuals with a doctoral degree who are members of the Society for Industrial and Organizational Psychology (SIOP), a large professional organization with 7,847 total members (in 2011). Participants were recruited to complete the survey through the professional organization's email. There were 135 female participants and 174 male participants. The majority of the racial makeup was made up of 276 Caucasians (89.3%). Subsequently, there were 16 Asians (5.2%), 8 Hispanics (2.6%), 3 Black or African Americans (1.0%), 1 American Indian or Alaska Natives (0.3%), 4 participants selected *Other* (1.3%), 3 participants chose *Two or More* (1.0%), and 6 preferred not to answer (1.9%).

When it came to their location, 275 participants reported to be located in the United States whereas 33 participants reported to be located outside of the United States (1 chose not to answer). In relation to type of university, 299 participants (96.8%) earned their degree from a college/university best described as a face-to-face program and 2 (0.6%) from a combination face-to-face and online program, 1 (0.3%) from an online program, and 7 (2.2%) chose not to answer.

When asked to report their primary employment setting, 119 participants (38.5%) reported *University*, 64 (20.7%) reported *Consulting Firm*, 44 (14.2%) reported *Private Sector Business*, 21 (6.8%) reported *Public Sector Organization*, 23 (7.4%) reported *Independent Practice*, 8 (2.6%) reported *Non-Profit Research Organization*, 10 (3.2%) reported *Retired*, 10

(3.2%) reported *Other*, 8 (2.6%) reported *Private College*, and 2 (0.6%) reported *Other Academic Institution*.

## **Procedure and Measures**

Survey data were collected via a Questar online survey system (see Appendix 8 for items). This online service allows researchers to construct questionnaires and to collect data from participants electronically. The data were collected as part of a larger membership survey that is conducted every 5 years or so. Electronic invitations to participate in the survey were sent to 6455 members. The response rate was 25% (or 1627 respondents). In addition, data about their reported advisor'(s') and mentor'(s') OCBs in the professional organization was collected using archival data searches (i.e., using the SIOP member directory, a Google search to find their school or business websites, LinkedIn.com, and PsycINFO). See Table 2 for a breakdown of the types of data collected.

*Professional identity.* Professional identity was measured using five items ( $\alpha = .85$ ) adapted from the Organizational Identification Scale developed by Mael and Ashforth (1992). All items were measured on a 6-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *partially disagree*, 4 = *partially disagree*, 5 = *agree*, 6 = *strongly agree*). The items were as follows: (1) I am very interested in what others think about SIOP; (2) When I talk about SIOP, I usually say 'we' rather than 'they'; (3) SIOP's successes are my successes; (4) When someone praises SIOP, it feels like a personal compliment; (5) If a story in the media criticized SIOP, I would feel

embarrassed. See Appendix B for full scale. The range of responses was 1-6. The mean was 4.25 ( $SD = 1.05$ ).

*Number of informal mentors.* Survey participants were asked whether they had informal mentors who were influential in their decision to join or be active in the professional society in addition to their academic advisor. There were 83 participants who reported having other informal mentors who influenced their OCBs in support of SIOP (255 reported having no other informal mentors). The number of informal mentors in SIOP listed by participants ranged from 1-5 with a mean of 0.38 ( $SD = 0.83$ ,  $Mode = 0$ ,  $Mdn = 0$ ).

*Participant OCBs in support of SIOP.* Participants' organizational citizenship behaviors exhibited toward the professional organization was measured by asking participants in the online survey how many times they had been a member of a SIOP committee. The range of responses was 1-15 ( $SD = 1.65$ ,  $Mode = 0$ ,  $Mdn = 0$ ). Because so many participants (191 out of 336) reported "0" which resulted in skewed data, this item was standardized (using  $z$ -scores) for all analyses.

*Mentor OCBs in support of SIOP.* Survey participants were asked whether they had an academic advisor and, if so, to provide the name of their academic advisor. Additionally, participants were asked to identify other mentors who had either influenced their decision to join SIOP or to be involved in the professional organization. To measure the OCBs of academic advisors and other mentors in the professional organization, archival data was used to determine the number of committees they had chaired within the organization [obtained from SIOP records and *The Industrial Psychologist* (TIP) publication]. The number of committees chaired for advisors ranged from 0 committees (225 advisors) to 11 committees with a mean of 1.28 ( $SD =$

0.83, *Mode* = 0, *Mdn* = 0). Because participants named up to five other informal mentors, the number of committees chaired by those mentors was aggregated by using the mean (also note that only 83 participants reported having informal mentors). The aggregate mean number of committees chaired ranged from 0 committees (35 informal mentors) to 11 committees with an overall mean of 2.00 committees (*SD* = 2.57, *Mode* = 0, *Mdn* = 1).

*Network diversity.* For those participants who listed both an academic advisor and at least one additional informal mentor, the network diversity of those multiple mentors and the advisor was assessed. Using archival data, the participants listing multiple mentors/advisors received a score representing the degree of balance with respect to the network diversity of these mentors/advisors. While mentors can be diverse with respect to a number of dimensions, a major distinction within our field is the scientist-practitioner split (see Brooks, Grauer, Thornbury, & Highhouse, 2003; O'Neill, 2008). I was able to get fairly reliable data on this but other possible dimensions (e.g., university) would be more difficult. Specifically, I determined through biographical archival information whether each informal mentor was an academic (coded as 1) or practitioner (coded as 0). Fifty-fifty (1 academic and 1 practitioner) is the ideal “balance” of diversity to get both sides of the scientist-practitioner split. Thus, I first calculated the proportion of academics within a set of mentors and then took the absolute value of the distance between that proportion and .50 (balanced diversity). The mean absolute distance was .45 (*SD* = .14).

*Gender composition of advisor-advisee dyad.* The gender composition of advisor-advisee dyads was assessed by computing a product term for the interaction of advisor and advisee gender. 267 (79.5%) male advisors were reported and 62 (18.5%) female advisors were reported (for 7 advisors, I was unable to determine their gender based on the data provided). There were

157 male advisor-male participant dyads, 112 male advisor-female participant dyads, 33 female advisor-female participant dyads, and 29 female advisor-male participant dyads.

*Years since PhD.* I controlled for how long the individual has had their doctoral degree (i.e., number of years since obtaining their PhD) when determining professional OCBs because individuals who have been in the field longer have had more time to establish their involvement in the professional society. The range of responses was 1 to 56 years ( $M = 16.50$ ,  $SD = 11.96$ ,  $Mode = 7$ ,  $Mdn = 15$ ). This item was standardized (using  $z$ -scores) for all analyses.

**Table 2. Breakdown of Data Collection**

<b>Archival Data Collection</b>	<b>Self-Reported Survey Data</b>
Mentors' Gender	Participant's Gender
Mentors' Location (US or non-US)	Participant's Location (US or non-US)
Mentors' Employment Industry	Participant's Employment Industry
Mentors' SIOP membership status	Participant's Professional Organization OCBs: number of SIOP committees as a member
Mentors' Professional Organization OCBs: number of SIOP committees chaired	Participant's Education Level and number of years since obtaining PhD
	Participant's Ethnicity

## CHAPTER FOUR: RESULTS

### Data Analysis

Because some individuals were identified as being an academic advisor for multiple participants, the nested effect for reported advisors was examined for each hypothesized relationship using Linear Mixed Models in IBM SPSS Statistics 19. Results showed that the random factor of advisor was not significant for number of other mentors reported (*Wald's*  $Z = 0.36, p = .72$ ), or for professional identification with SIOP (*Wald's*  $Z = 0.53, p = .60$ ). I was unable to compute the test statistics for Other Mentors' Professional OCBs with SIOP, Network Diversity, and Participant OCBs in Support of SIOP due to a failure of the Hessian matrix to be positive definite, although convergence criteria were satisfied. Since there was not a significant effect for the advisor, all hypotheses were tested using Multiple Regression in IBM SPSS Statistics 19.

### Correlational Results

Table 3 contains the means, standard deviations, and interclass correlations among study variables. Advisor OCBs in support of SIOP were positively related to participant professional identification with SIOP ( $r = .12, p = .02$ , one-tailed). However, advisor OCBs in support of SIOP was not significantly related to participant OCBs in support of SIOP ( $r = .05, p = .19$ , one-

tailed). Advisor gender was positively, though modestly, related to participant gender ( $r = .09$ ,  $p = .05$ , one-tailed). The number of other informal mentors was positively related to participant professional identification with SIOP ( $r = .19$ ,  $p < .001$ , one-tailed). The level of OCBs in support of SIOP of one's other informal mentors was not significantly related to participant professional identification with SIOP ( $r = .07$ ,  $p = .27$ , one-tailed), but it is important to note that not everyone reported having other informal mentors which reduced the sample size for these analyses to 83. However, the level of OCBs of one's other informal mentors was related to participant OCBs in support of SIOP ( $r = .19$ ,  $p = .05$ ).

## Tests of Hypotheses

An alpha level of .05 was used for all analyses.

*Professional identification with SIOP.* In order to test Hypotheses 1, 4 and 5 professional identity was first regressed onto participant years since PhD, participant gender, advisor gender, advisor OCBs in support of SIOP, and number of informal mentors  $R^2 = .25$ ,  $F(5, 326) = 4.39$ ,  $p = .001$  (see Table 4, Model 1). Next, a second model was used to test interactions involving gender composition [ $R^2 = .27$ ,  $F(5, 326) = 2.70$ ,  $p = .005$  (see Table 4, Model 2)]. Advisor OCBs in support of SIOP accounted for unique variance in participant professional identification with SIOP ( $\beta = 0.09$ ,  $t(321) = 1.61$ ,  $p = .05$ , one-tailed) thus supporting Hypothesis 1. Additionally, and in support of Hypothesis 5, participants who had more informal mentors reported a stronger identification with SIOP ( $\beta = 0.16$ ,  $t(321) = 3.02$ ,  $p = .002$ , one-tailed). Hypothesis 4 predicted that the positive relationship between the level of OCBs of one's academic advisor within a



professional organization and the advisee/protégé's identification with that organization would be stronger when the advisor and advisee were the same gender than it would be when the advisor and advisee are different genders. Neither participant gender ( $\beta = 0.06$ ,  $t(322) = 1.37$ ,  $p = .17$ ), advisor gender ( $\beta = 0.01$ ,  $t(322) = 0.27$ ,  $p = .79$ ), or their interaction were significant predictors ( $\beta = -0.12$ ,  $t(318) = -0.31$ ,  $p = .76$ ). Additionally, the three-way interaction for gender composition by advisor's OCBs was not significant ( $\beta = 0.07$ ,  $t(318) = 0.23$ ,  $p = .41$ , one-tailed). Thus, Hypothesis 4 was not supported.

*Organizational citizenship behaviors in support of SIOP.* In order to test Hypotheses 2 and 3, participant OCBs in support of SIOP was regressed onto participant years since PhD, participant gender, advisor OCBs in support of SIOP, and number of informal mentors  $R^2 = .23$ ,  $F(4, 329) = 4.46$ ,  $p = .002$  (see Table 5, Model 1). In relation to Hypothesis 2, individuals whose academic advisors were more actively involved in SIOP engaged in greater OCBs within that organization themselves, but this effect did not reach the level of statistical significance ( $\beta = 0.08$ ,  $t(334) = 1.39$ ,  $p = .08$ , one-tailed). Thus, Hypothesis 3 which stated that professional identity would mediate the relationship between advisor's OCBs and participant OCBs could not be tested. However, the number of informal mentors reported by participants was a significant predictor of participant OCBs ( $\beta = 0.10$ ,  $t(334) = 1.87$ ,  $p = .03$ , one-tailed). To test whether professional identification mediated the relationship between the number of informal mentors a participant reported and the participant's OCBs, the Baron and Kenny (1986) approach was used. Results from the analysis just described provided support for Step 1 of the mediation model, that number of informal mentors was a significant predictor of participant OCBs in support of SIOP. Step 2 showed that the regression of participant OCBs in support of SIOP on the mediator,

participant professional identification with SIOP, was significant ( $\beta = 0.11$ ,  $t(334) = 2.06$ ,  $p = .04$ ) while controlling for the major advisor's OCBs in support of SIOP and the number of informal mentors identified. In this analysis, the relationship between major advisor's OCBs in support of SIOP and participant OCBs in support of SIOP dropped in significance, ( $\beta = 0.07$ ,  $t(334) = 1.21$ ,  $p = .23$ ). Thus, although not significant, the relationship between the level of OCBs of one's academic mentor and the OCBs the individual later exhibits in the same organization appeared to be explained by the degree to which the individual identified with the organization, consistent with Hypothesis 3. Number of informal mentors remained a significant predictor in this analysis. Consistent with my theoretical model implying that professional identity served as a mediator of the relationship between number of informal mentors and participant OCBs, the beta weight for number of informal mentors dropped from 0.10 to 0.08 when professional identity was added to the equation (see Table 5, Models 1 and 2).

*Moderators of having multiple mentors.* Hypotheses 6 and 7 stated that the number of informal mentors would be more strongly associated with professional identity if those mentors were more involved in OCBs (H6) and if those mentors were more diverse (H7). Thus, in order to test Hypothesis 6 and 7, a separate analysis was performed using only those participants who had listed a least one informal mentor which dropped the sample size to 83. Specifically, participant professional identification with SIOP was regressed onto participant years since PhD, advisor OCBs in support of SIOP, number of informal mentors, balance of mentor diversity, informal mentors' OCBs in support of SIOP, the interaction between the number of informal mentors and mentor diversity, and the interaction between the number of informal mentors and informal mentor OCBs in support of SIOP  $R^2 = .04$ ,  $F(7, 75) = 0.43$ ,  $p = .884$  (see Table 6,

Model 2). This regression model was not significant. Hypothesis 6 stated that the level of OCBs of one's informal mentors in a professional organization would moderate the influence of having multiple mentors on an individual's identification with that organization, however this was not supported ( $\beta = -0.16$ ,  $t(81) = -0.39$ ,  $p = .35$ , one-tailed). Hypothesis 7 was also not supported. The number of informal mentors within a professional organization was not more strongly associated with their identification with that professional organization when their multiple mentors were more balanced with respect to their professional networks (e.g., academic/practice) than when the mentors were more homogeneous in this regard ( $\beta = -0.10$ ,  $t(81) = -0.32$ ,  $p = .37$ , one-tailed).

Next, participant OCBs were regressed on the same set of predictors, again only for those who had reported at least one informal mentor in addition to their academic advisor. This equation was significant  $R^2 = .21$ ,  $F(5, 77) = 3.99$ ,  $p = .003$  (see Table 7, Model 1). Although the number of informal mentors reported did not significantly interact with informal mentor OCBs or with their diversity balance, there were direct relationships of the degree to which participants' mentors represented a balance of academics and practitioners ( $\beta = -0.29$ ,  $t(81) = -2.80$ ,  $p = .004$ , one-tailed), and of informal mentors' level of OCBs ( $\beta = 0.18$ ,  $t(81) = 1.75$ ,  $p = .04$ , one-tailed; see Table 7).

**Table 3. Zero Order Correlations, Means, and Standard Deviations among Study Variables**

Variable	1	2	3	4	5	6	7	8	9
1. Years since PhD <sup>a</sup>	1.00								
2. Participant gender <sup>b</sup>	<b>-.26**</b>	1.00							
3. Advisor gender <sup>b</sup>	<b>-.29**</b>	<b>.09*</b>	1.00						
4. Advisor OCBs in support of SIOP	<b>-.10*</b>	<b>.11*</b>	-.01	1.00					
5. Number of other mentors	-.05	.06	.01	<b>.13*</b>	1.00				
6. Other mentors OCBs in support of SIOP <sup>c</sup>	.20	.04	-.15	-.02	-.11	1.00			
7. Professional Identity	<b>-.13*</b>	.11	.05	<b>.12*</b>	<b>.19**</b>	.07	1.00		
8. Participant OCBs in support of SIOP <sup>a</sup>	<b>.15**</b>	-.10	.01	.05	<b>.11*</b>	.19	<b>.10*</b>	1.00	
9. Mentor Diversity Balance	.11	-.11	-.09	-.10	<b>-.48**</b>	.02	<b>-.15**</b>	<b>-.15*</b>	1.00
<i>M</i>	0.09	0.44	0.17	1.33	0.38	2.19	4.26	0.03	0.45
<i>SD</i>	0.97	0.50	0.38	2.45	0.84	2.57	1.08	0.99	0.14

\* $p < .05$ . \*\* $p < .01$ .  $N = 309$ . <sup>a</sup>Variable was standardized using  $z$ -scores. <sup>b</sup>0 = male, 1 = female. <sup>c</sup> $N = 73$  (not all participants reported having other informal mentors).

**Table 4. Predictors of Participant Professional Identification with SIOP (Hypotheses 1, 4, & 5)**

Variable	B	SE B	β	t	p	Confidence Interval	
						Lower Bound	Upper Bound
Model 1							
Constant	4.06	0.09		45.56	.000	3.886	4.237
Participant Years Since PhD <sup>ab</sup>	-0.10	0.06	-0.09	-1.61	.108	-0.222	0.022
Participant Gender <sup>b</sup>	0.16	0.12	0.06	1.37	.173	-0.072	0.398
Advisor Gender	0.04	0.15	0.01	0.27	.786	-0.262	0.346
Advisor OCBs in support of SIOP <sup>c</sup> (H1)	0.04	0.02	0.09	1.61	.054*	-0.009	0.086
Number of Informal Mentors (H5)	0.21	0.07	0.17	3.02	.003	0.072	0.344
$R^2 = .253$							
$F = 4.39, p = .001$							
Model 2							
Constant	4.01	0.10		40.98	.000	3.819	4.204
Participant Years Since PhD <sup>ab</sup>	-0.10	0.06	-0.10	-1.61	.109	-0.225	0.023
Participant Gender <sup>b</sup>	0.38	0.45	0.18	0.86	.391	-0.494	1.260
Advisor Gender <sup>c</sup>	0.12	0.27	0.04	0.44	.660	-0.412	0.649
Advisor OCBs in support of SIOP <sup>c</sup>	0.13	0.12	0.29	1.06	.289	-0.108	0.361
Number of Informal Mentors <sup>b</sup>	0.21	0.07	0.17	3.07	.002	0.077	0.352
Participant Gender X Advisor Gender (H4)	-0.11	0.36	-0.07	-0.31	.760	-0.816	0.597
Participant Gender X Advisor OCBs in support of SIOP	-0.11	0.17	-0.20	-0.65	.514	-0.431	0.216
Advisor Gender X Advisor OCBs in support of SIOP	-0.04	0.10	-0.12	-0.44	.659	-0.238	0.151
Participant Gender X Advisor Gender X Advisor OCBs in support of SIOP	0.03	0.14	0.07	0.23	.818	-0.238	0.301
$R^2 = .267$							
$F = 2.70, p = .005$							

Notes:  $N = 327$ . \*One-tailed. <sup>a</sup>Variable was standardized using z-scores. <sup>b</sup>Reported by the participant. <sup>c</sup>Coded from archival data.

**Table 5. Predictors of Participant OCBs in Support of SIOP<sup>a</sup> (Hypotheses 2 & 3)**

Variable	B	SE B	β	t	p	Confidence Interval	
						Lower Bound	Upper Bound
Model 1							
Constant	-0.04	0.08		-0.47	.638	-0.187	0.115
Participant Years Since PhD <sup>a</sup>	<b>0.17</b>	<b>0.05</b>	<b>0.18</b>	<b>3.20</b>	<b>.001</b>	0.067	0.280
Participant Gender <sup>b</sup>	-0.12	0.11	-0.06	-1.08	.280	-0.329	0.096
Advisor OCBs in support of SIOP <sup>c</sup> (H2)	0.03	0.02	0.08	1.39	.082*	-0.013	0.074
Number of Informal Mentors <sup>b</sup>	<b>0.12</b>	<b>0.06</b>	<b>0.10</b>	<b>1.87</b>	<b>.031*</b>	0.006	0.241
$R^2 = .227$							
$F = 4.46, p = .002$							
Model 2							
Constant	-0.46	0.22		-2.10	.037	-0.885	-0.028
Participant Years Since PhD <sup>a</sup>	<b>0.18</b>	<b>0.05</b>	<b>0.19</b>	<b>3.38</b>	<b>.001</b>	0.077	0.289
Participant Gender <sup>b</sup>	-0.14	0.11	-0.07	-1.25	.212	-0.347	0.077
Advisor OCBs in support of SIOP <sup>c</sup>	0.03	0.02	0.07	1.21	.114*	-0.017	0.069
Number of Informal Mentors <sup>b</sup>	0.10	0.06	0.08	1.50	.067*	0.030	0.220
Participant Professional Identification with SIOP <sup>b</sup>	<b>0.10</b>	<b>0.05</b>	<b>0.11</b>	<b>2.06</b>	<b>.040</b>	0.005	0.203
$R^2 = .252$							
$F = 4.45, p = .001$							

Notes:  $N = 334$ . \*One-tailed. <sup>a</sup>Variable was standardized using  $z$ -scores. <sup>b</sup>Reported by the participant. <sup>c</sup>Coded from archival data.

**Table 6. Diversity Predictors of Participant Professional Identification with SIOP (Hypotheses 6 & 7)**

Variable	B	SE B	β	t	p	Confidence Interval	
						Lower Bound	Upper Bound
<b>Model 1</b>							
Constant	4.44	0.28		15.82	.000	3.881	5.000
Participant Years Since PhD <sup>ab</sup>	-0.10	0.02	-0.09	-0.79	.439	-0.342	0.150
Advisor OCBs in support of SIOP <sup>c</sup>	-0.02	0.04	-0.05	-0.46	.322*	-0.093	0.058
Number of Informal Mentors <sup>b</sup>	0.13	0.11	0.14	1.18	.121*	-0.091	0.357
Mentor Diversity Balance <sup>c</sup>	-0.31	0.49	-0.07	-0.64	.527	-1.286	0.663
Informal Mentors' OCBs in support of SIOP <sup>c</sup>	0.04	0.05	0.11	0.98	.330	-0.045	0.133
$R^2 = .035$							
$F = .60, p = .731$							
<b>Model 2</b>							
Constant	4.24	0.49		8.63	.000	3.263	5.223
Participant Years Since PhD <sup>ab</sup>	-0.08	0.13	-0.08	-0.66	.513	-0.338	0.170
Advisor OCBs in support of SIOP <sup>c</sup>	-0.02	0.04	-0.06	-0.53	.298*	-0.099	0.057
Number of Informal Mentors <sup>b</sup>	0.35	0.46	0.35	0.76	.225*	-0.561	1.252
Mentor Diversity Balance <sup>c</sup>	-0.05	0.98	-0.01	-0.05	.961	-2.009	1.912
Informal Mentors' OCBs in support of SIOP <sup>c</sup>	0.04	0.05	0.11	0.93	.358	-0.048	0.133
Number of Informal Mentors X Informal Mentors' OCBs in support of SIOP	-0.03	0.08	-0.16	-0.39	.350*	-0.185	0.125
Number of Informal Mentors X Mentor Diversity	-0.21	0.64	-0.10	-0.32	.374*	-1.484	1.069
$R^2 = .038$							
$F = .43, p = .884$							

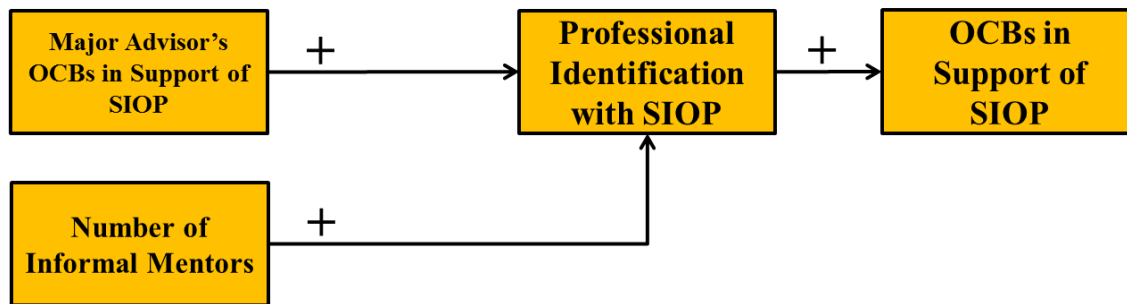
Notes:  $N = 83$ . \*One-tailed. <sup>a</sup>Variable was standardized using z-scores. <sup>b</sup>Reported by the participant. <sup>c</sup>Coded from archival data.

**Table 7. Diversity Predictors of Participant OCBs in Support of SIOP (Post-hoc)**

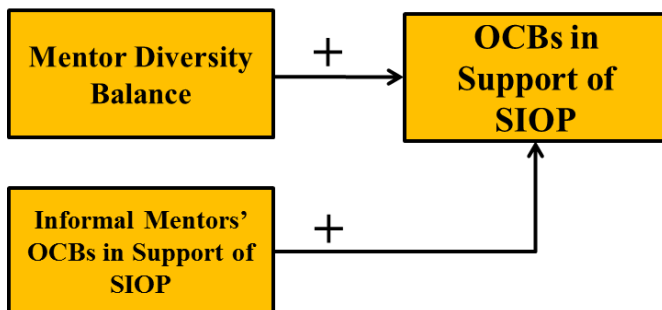
Variable	B	SE B	β	t	p	Confidence Interval	
						Lower Bound	Upper Bound
Model 1							
Constant	1.34	0.37		3.64	.000	0.607	2.076
Participant Years Since PhD <sup>ab</sup>	<b>0.37</b>	<b>0.16</b>	<b>0.24</b>	<b>2.25</b>	<b>.027</b>	0.042	0.668
Advisor OCBs in support of SIOP <sup>c</sup>	0.05	0.05	0.11	1.06	.292	-0.046	0.151
Number of Informal Mentors <sup>b</sup>	0.15	0.15	0.11	1.04	.302	0.141	0.447
Mentor Diversity Balance <sup>c</sup>	<b>-1.80</b>	<b>0.64</b>	<b>-0.29</b>	<b>-2.80</b>	<b>.007*</b>	-3.079	-0.518
Informal Mentors OCBs in support of SIOP <sup>c</sup>	<b>0.10</b>	<b>0.06</b>	<b>0.18</b>	<b>1.75</b>	<b>.042*</b>	-0.014	0.220
$R^2 = .454$							
$F = 3.99, p = .003$							
Model 2							
Constant	0.21	0.38		0.56	.578	-0.537	0.057
Participant Years Since PhD <sup>ab</sup>	<b>0.22</b>	<b>0.10</b>	<b>0.24</b>	<b>2.21</b>	<b>.030</b>	0.021	0.409
Advisor OCBs in support of SIOP <sup>c</sup>	0.04	0.05	0.12	1.16	.249	-0.025	0.094
Number of Informal Mentors <sup>b</sup>	0.01	0.35	0.01	0.02	.985	-0.685	0.698
Mentor Diversity Balance <sup>c</sup>	-0.60	0.75	-0.16	-0.80	.426	-2.096	0.894
Informal Mentors OCBs in support of SIOP <sup>c</sup>	<b>0.06</b>	<b>0.04</b>	<b>0.18</b>	<b>1.68</b>	<b>.049*</b>	0.011	0.127
Number of Informal Mentors X Informal Mentors' OCBs in support of SIOP	0.04	0.06	0.23	0.63	.530	-0.081	0.155
Number of Informal Mentors X Mentor Diversity	-0.32	0.49	-0.19	-0.66	.509	-1.298	0.649
$R^2 = .459$							
$F = 2.94, p = .009$							

Notes:  $N = 83$ . \*One-tailed. <sup>a</sup>Variable was standardized using z-scores. <sup>b</sup>Reported by the participant. <sup>c</sup>Coded from archival data.





**Figure 2. Final Model: Full Sample**



**Figure 3. Final Model: Individuals with Informal Mentors**

## CHAPTER FIVE: DISCUSSION

### **Summary of Results**

The purpose of the current study was to investigate the influence that academic major advisors and other informal mentors can have on an individual's identification with a professional organization and their ensuing level of OCBs in that professional organization. The current study tackles McManus and Russell's (1997) call for research that examines the link between mentoring and OCBs. Additionally, few prior studies have demonstrated the unique effects of informal and formal mentors that mentor the same individual. Another particular highlight of the study includes a broad spectrum of individuals from around the globe who are in various professional stages ranging from recent doctoral graduates to professional retirees still active in the professional community.

It was hypothesized that individuals with both an academic advisor and one or more informal mentors actively involved OCBs within the same professional organization would express stronger identification with that organization and would demonstrate greater professional organization citizenship behaviors themselves. The mentor's values and professional citizenship were expected to be highlighted in the mentoring relationship and encouraged in the protégé. Observing a positive and professionally active role model had a positive impact on the protégé's behaviors. Specifically, when academic advisors engaged in greater OCBs within SIOP participants reported stronger identification with SIOP. Additionally, when participants' informal mentors were more actively involved in OCBs in support of SIOP participants engaged in greater

OCBs themselves. Having more informal mentors was positively associated with participant OCBs and this relationship was mediated by professional identification with SIOP.

The diversity balance of one's multiple mentors was not related to an individual's identification with a professional organization. However, it was related to how many OCBs an individual engaged in in support of SIOP. It is likely that individuals establish their sense of professional identity early on from their major advisor and instead attract and network with other informal mentors later in their careers after they have obtained their PhD and are eligible to participate in committees. Although results did not reach statistical significance, those with major advisors who were more active in the professional organization were more active in that organization themselves and the pattern of the results suggested that this relationship is likely to be explained by professional identification.

Lastly, due to the research underscoring the influence gender similarity has on mentoring as well as professional development and identification, gender similarity was expected to moderate the relationship between major advisor OCBs in support of SIOP and professional identity. However, this was not supported, likely due to the low variance in the gender of the major advisors (i.e., 81% were male and only 18.6% were female).

## **Theoretical Implications**

The importance of mentoring in the development of professional identity was underscored by Kram (1985) and further supported by this study's results. Researchers have also

investigated the extent to which protégés mimic their mentors' career choices and acquire their mentorship skills (e.g., Malmgren, Ottino, & Amaral, 2010). As the results of the current study illustrate, mentoring is a critical component in the development of one's professional identity as well as citizenship behaviors in support of a profession. Professional organizations like SIOP rely on the volunteer behaviors of their members in order to survive. Mentors not only model this type of behavior, but also reinforce those types of behaviors in their protégés as well (McManus & Russell, 1997). My findings that participants with mentors who engage in OCBs in support of SIOP subsequently engaged in significantly more OCBs in support of SIOP themselves supports Donaldson et al.'s (2000) finding that individuals with high quality mentoring relationships engaged in significantly more OCBs.

This study integrated mentoring theory with existing research on OCBs and helping behaviors and specifically examined helping behavior as an outcome of mentoring, which addressed a call by Eby, Durley, Evans, and Ragins (2008). Informal mentoring was found to be a better predictor of professional identification with SIOP and OCBs. This aligns with theory regarding the relative superiority of informal mentoring to formal mentoring (e.g., Ragins & Cotton, 1999). Academic advisors may be most influential during the graduate school development stages, but may not necessarily continue the relationship beyond graduation. Individuals may not maintain contact with their major advisor- there was no way to tell from the data when this individual was influential, for how long, or even at what point of the individual's career. Perhaps individuals do not understand come to understand the specific ways in which their identification with an organization can and should be manifested until after they graduate. If the individual does not interact with his or her advisor but goes on to have other mentors, the

other mentors should be more related to these types of helping behaviors than the advisor (which is consistent with my findings). This logic follows the recency effect. More recent mentors may have a stronger effect on the manner in which individuals' professional identity is manifested. I was unable to access data from participants regarding the time at which their reported mentors actually became their mentors. The advisor-participant began a long time ago for many of the participants (with a mean of 17 years) and it is quite possible that not everyone stays in touch with their advisors. Identity may be formed early and stay the same, but it may not predict their behaviors because they have more interactions with other informal mentors and use those to determine behavioral norms for the profession. In addition, participants may strongly associate with SIOP but not think it is important to be on committees. It may very well depend on whom they regularly interact with and what is expected of them on their jobs. Your advisor is trying to get you through school, but people you meet after you get your doctoral degree do different things for you throughout your professional careers and can be integral in providing professional networking opportunities to be active on committees, for example.

It is possible that participants sought out additional informal mentors as their professional careers progressed, each who contributed something instrumental along the way, and perhaps support that their advisors could not provide. Mentoring theory should incorporate the influence of both formal academic mentors and informal mentors throughout an individual's professional career to get the full scope of the developmental progression.

During the advisory period in graduate school, students are expected to not only master content, but also begin to develop skills that will enable them to become professionally successful in the future. The advisor is a likely catalyst for these types of skills, however once an

individual enters the real world, these skills are likely to develop further, or even transform because of subsequent interactions with additional professional society members, who may turn into informal mentors thus enabling the student to move towards full participation in the current and future professional community. Veteran members of an organization set expectations based on the norms of the group (Katz & Kahn, 1978). These role models are key contextual antecedents to engaging prosocial behaviors (Brief & Motowidlo, 1986). As was discovered, the degree of mentor OCBs in support of SIOP predicts the level of protégé OCBs. We look to those around us to navigate the profession and determine role expectations and professional norms of behavior. If your mentors are on many professional committees, it is likely you will see this as expected behavior to support the professional organization. Furthermore, to the degree that individuals develop a professional identification with that organization, they are likely to feel some reciprocity towards the organization for assistance they have been provided from members of that organization and engage in OCBs to support that organization in return.

Further, when evaluating the influence that mentors' OCBs can have on an individual, it is important to incorporate more than just data from a single mentor. Especially today, individuals are receiving support and guidance from multiple individuals. Mentoring theory needs to continue to examine the influence these mentor networks have on how an individual develops a professional identity as well as the OCBs they engage in. Developmental relationships with organizational insiders are a primary support tool through which individuals develop their professional identities and navigate a profession. Mentoring and advisory relationships are distinct kinds of these developmental relationships that provide particularly salient cues to professional newcomers about desired behaviors and expectations. Social learning

theory (Bandura, 1986) can be used to explain how individuals acquire behavioral norms from their mentors. Mentors are instrumental in educating their protégés about the unwritten rules of their profession by sharing their professional experiences (Johnson, 2003).

The notion of multiple mentors was first suggested by Kram (1985), specifically that protégés need various mentors sequentially during different phases of their career progression. Higgins and Kram (2001) later conceptualized mentoring as a relationship network that traverses a protégé's professional career (Higgins & Kram, 2001). When individuals have informal mentors in addition to their formal academic mentor, that are also members of the same professional organization, this contributes uniquely to their determination of the types of citizenship behaviors they engage in. Workforce dynamics have shifted to almost require individuals to seek out multiple diverse mentors in order to advance and be successful. It is almost impossible now for a single individual to possess all of the necessary knowledge for various stages of professional development and growth. In a profession that underscores continuous learning and adaptation multiple mentors can be vital survival aids. Individuals are diversifying and seeking guidance to acquire the necessary knowledge to develop professionally. An individual with multiple mentors is likely actively participating in opportunities to develop and to benefit the professional society. These individuals possess a toolkit of resources to keep up with rapidly changing knowledge requirements and technologies. "A collection of mentors is invaluable, providing different perspectives, knowledge, and skills while serving multiple mentoring functions" (de Janasz et al., 2003, p. 81). Based on the same arguments regarding the advisor's OCBs, informal mentors' OCBs in support of the professional organization are

important as well. If an individual has multiple mentors but they are not active in the society it may reinforce the wrong message.

Having multiple mentors who are diverse but share a superordinate identification with a professional society fosters an individual's OCBs in support of that. If an individual has diverse mentors who share a superordinate professional identity he or she looks to those mentors to determine what the behavioral norms and expectations are. When it comes to diversity, mentors can be diverse with respect to a number of dimensions; however, a major distinction within the field of Industrial-Organizational Psychology is the scientist-practitioner split (see Brooks et al., 2003; O'Neill, 2008). In the present study, I examined whether the diversity of one's multiple mentors with respect to this distinction moderated the influence of having multiple mentors. Specifically, I expected that having a balance of scientist and practitioner mentors would be most effective. While this balanced diversity had a direct effect on participant OCBs in support of SIOP, it did not moderate the effect of the number of informal mentors. It is likely due to the reduced power of the smaller sample (i.e., I lost over 200 participants for these analyses) of participants who reported having informal mentors.

## **Practical Implications**

Individuals are no longer spending their entire working lives with a single organization and thus are relying on their professional identities to contour their careers, and in the United States, future employees are expected to change jobs over twelve times in the course of their careers (Kanfer et al., 2001). Our definition of *stability* is changing in response to leaner and



more flexible organizations. While a job change can be seen as an opportunity for network enrichment, the change in societal job norms does not remove an individual's need to belong. Professional organizations are designed to facilitate professional identity that is inclusive of many different types of jobs and serve as a means of making one's career cohesive despite frequent job changes. Mentoring relationships can help protégés foster their sense of professional identity while also providing mentors with generativity and purpose (Allen et al., 2008; Kram, 1985; Levinson et al., 1978).

The results of this study encourage the development of multiple mentoring relationships. Professional organizations can aid in the growth of mentoring relationships by fostering connections between professional members, thus increasing the likelihood that mentorships will ensue. This idea is consistent with Bozionelos (2004) who concluded that we should motivate managers to mentor their junior colleagues by stressing that they can enhance their *own* careers by mentoring others. It is also important that protégés carefully consider their needs before determining which mentoring relationships to undergo. This way, they can harness the strengths of the mentors in their profession. Mentors must also be cognizant of the behaviors they are modeling. Professional organizations should support mentors who engage in OCBs in support of the profession as they are positively modeling desirable behaviors to others in the organization.

Mentors should also consider the developmental needs and professional goals of their protégés (Scandura, 1998). Professional organizations could also formally recognize particularly influential mentors who have guided many throughout their careers and positively modeled OCBs in support of the profession, particularly if those they mentor subsequently go on to mentor others in the profession and subsequently engage in professional OCBs thus

strengthening the professional network ties in the organization. The professional organization could clearly communicate the organization's mission, values, and provide guidelines for mentors to improve compatibility between messages (Baugh & Scandura, 1999). Protégés with multiple mentors should be careful to avoid conflicting demands from their mentors and look for similarities in the kinds of behaviors being modeled. The professional organization must also emphasize the importance of personal responsibility, particularly when it comes to professional engagement and volunteering behavior. If an individual does not assume personal responsibility, they are not likely to participate in helping behaviors (Darley & Latané, 1968).

It is important to point out that “it is not enough just to increase the size of the mentoring network; it is important to conduct a careful analysis of what competencies you wish to build (knowing why, how, whom) and find the best resources for development” (de Janasz, Whiting, & Sullivan, 2004, p. 86). It is likely that many individuals will have access to multiple mentors who are willing to help develop them as a professional or to provide them a source for networking. One caveat, however, is that there are diminishing returns, specifically that “Too many individuals in a network can impede the building of trust and hinder support, information, and assistance” (de Janasz, Whiting, & Sullivan, 2004, p. 86). Thus, it is important to carefully select those mentors who can bring something unique to your professional development.

Sponsorship by a professional organization's members starts with being accepted into a doctoral program. This lets you know "you're worthy" and then it is up to you to prove them right. There is a symbiotic relationship between student and advisor and student and mentor. Protégés should also add value to these professional relationships by engaging in an active role in the profession and mentoring future generations.

## **Limitations and Future Research Directions**

Although the results of this study are enlightening, some study limitations should be addressed. First, there is the potential issue of cohort-time effects. While the length since doctoral degree for participants was controlled for in my analyses, due to the archival nature of the advisor and mentor data I was unable to examine potential cohort effects for these reported mentors. It is possible that mentors from certain time-periods were more actively involved in the professional organization. Future researchers should examine this phenomenon to see if there are certain generational trends in OCBs in support of SIOP in the field of Industrial-Organizational Psychology. This study also only included participants who had earned a doctoral degree. Future research should determine if there are differences for individuals who have received master's degree or individuals who are currently enrolled in a graduate program. Additionally, due to the archival nature of this study, I was not able to collect individual differences (i.e., personality) that could account for variance in OCBs and I was only able to use a single indicator of OCBs (i.e., number of committees) because it was the only complete and reliable measure in the available data. Future researchers should examine other relevant OCBs in support of a professional organization to get a more complete picture of the relationship.

It is also important to address the gender gap in my data. Gender similarity was expected to moderate the relationship between major advisor OCBs in support of SIOP and professional identity. However, this was not supported, likely because there were significantly more male advisors reported than females advisors (i.e., 81% were male and only 18.6% were female). The

gender composition could have been correlated with generational differences since there were fewer female professors long ago. While women seem to be making strides in the profession of psychology in terms of student numbers (Cynkar, 2007), this study illustrates quite a divide between male and female academics that mentor students in the Industrial-Organizational Psychology profession. Future research should continue to shed light on these gender differences and examine potential reasons and implications for this disparity.

Another limitation is the issue that it is quite likely that among the informal mentors identified, some were actually more influential than others were. Future researchers should have participants rate the influence of each mentor separately to untangle individual influence differences among advisors and mentors. I also do not know whether it was the advisor who introduced the participant to their other informal mentors or whether they developed those relationships on their own. One cannot be sure of temporal order of relationships since you used archival data. For example, it could be that people who serve on more committees develop more informal mentoring relationships as a result. Future research should determine how these connections were made and if there it creates a difference in outcome. Researchers should also collect data from the mentor's perspective to see how much the mentor reports being involved in that relationship. Further, future studies should consider additional identity measures such as identification with the mentor. Additionally, only one dimension of diversity was examined which involved diversity balance in relation to having mentors who are scientists and mentors who are practitioners. There are many other forms of diversity that could be examined in future research such as type of educational training received, graduate program diversity, etc. It was also problematic that my power was significantly reduced when examining these hypothesized

diversity relationships. Future researchers should examine the influence of balanced diversity using larger samples to determine if these findings hold true.

Future researchers should also examine the potential influence that the formality and tenure of the mentoring relationship can have on an individual's professional identity and OCBs in support of SIOP. While we were unable to examine this in the current study, it is likely that this could change the degree of influence of the advisor or mentor. For example, someone with an advisor who has worked closely with them and modeled numerous professional OCBs is likely much more influential for their protégé than an advisor who only worked with the individual in supervising his or her doctoral dissertation. It is also important to note that mentors can also have a negative influence – modeling bad behavior. Both positive and negative modeling should be examined in future research to see how a dysfunctional mentor could influence an individual's helpfulness toward a given profession.

Further, membership in other professional organizations should be examined. It would be interesting to examine how mentors involved in other professional societies influence an individual's sense of professional identity and the degree of overlap they may have in multiple professional organizations. For example, some SIOP members are also members of the Academy of Management (AoM) and other I-O related organizations whereas other individuals are only members of SIOP and nothing else. According to Ashforth et al. (2008), identities are relative and can change depending on one's comparison standard, and identity salience can vary over time and settings (Johnson et al., 2006). At one point in an individual's career, he or she may identify strongly with one profession, and then later identify more strongly with another. Particularly in our field of I-O Psychology, it is possible for someone to start out working in a

Psychology Department as a faculty member, move to work in a Management Department, then transition into being a practitioner later in life. As was evident from examining the coded biographical data of the reported mentors, often individuals spanned multiple professional roles. Researchers should consider examining the longitudinal impact of the progression of professional identity overtime to see how that might change the level of OCBs toward a particular professional organization.

I also advise researchers to examine actual OCBs in the professional organization (i.e., number of committees chaired or volunteer hours) because being a member does not equate involvement in that organization. For example, when examining how involved participants were, across the entire sample surveyed from SIOP, 48% had never served as a conference reviewer, 75% of members had never volunteered to be a member of a committee, and 93% had never chaired a committee. In order to get an accurate metric for OCBs, researchers need to look beyond dichotomous membership numbers. And as Ryan and Ford (2010) caution, “setting does not dictate what professional identity is embraced by an individual” (p. 251), it is important to examine the route in which an individual navigates the web of overlapping professions in the field of I-O Psychology (i.e., Psychology, Management, Organization Behavior, Human Resources, etc.) to define him or herself as a professional.

Lastly, researchers should examine outcomes of various degrees of professional identification and OCBs in support of the profession- specifically evaluating possible differences in career satisfaction, career success, salary and promotion, or even if there are differences in how an individual responds to turnover and the job search process. It would be interesting to see

if there are potential long-reaching effects or even self-esteem protective factors for individuals who have developed a strong sense of professional identity.

## **Conclusion**

Professional organizations need OCBs to survive and identification with the society drives OCBs. The more an individual identifies with the society, the more likely they are to engage in these types of volunteer activities that are essential to sustaining the organization. As this paper has illustrated, mentoring is critical for identification. Advisors should consider the developmental needs and professional goals of their protégés (Scandura, 1998). And the responsibility does not just fall on advisors and mentors. In order to be successful, protégés need to throw out a wide net and “catch” multiple diverse mentors since there is no way to predict where they might end up in the future. Individuals who have multiple mentors possess a “toolkit” of mentor resources. However, is more always better? At what point does it become redundant? Individuals transfer behaviors or attitudes more effectively when an assortment of pertinent stimuli are used (Baldwin & Ford, 1988). When individuals are given different examples, learning is enhanced versus only seeing one example over and over again (Shore & Sechrest, 1961).

Professional organizations should actively aid in the growth of mentoring relationships by fostering connections between professional members and newcomers. In addition, professional organizations should formally recognize particularly influential mentors in order to

communicate the importance of being involved in the development of fellow professionals.

Professional organizations should clearly communicate the organization's mission, values, and provide guidelines for mentors to improve compatibility between messages (Baugh & Scandura, 1999). This will ensure that newcomers are receiving the correct information about the professional society and the profession as a whole. In these unsettled economic times, people need something to hang onto. Professional organizations provide career continuity in a winding labyrinth of job uncertainty.



## APPENDIX A: SURVEY ITEMS

### **SIOP Survey Items**

1. What is your current membership status?
  - a. Student
  - b. Associate
  - c. International Affiliate
  - d. Member
  - e. Fellow
  - f. Retired
2. Are you located in the United States?
  - a. No
  - b. Yes
3. How many SIOP committees have you been on?
  - a. Which committees?
4. Did you have a primary academic advisor?
  - a. No
  - b. Yes
5. Who is/was your academic major advisor?
6. Who is/are this/these mentor(s)?
7. Are you:
  - a. Male
  - b. Female
  - c. Transgendered
  - d. Other (please specify)
  - e. I prefer not to answer this question
8. Please specify your race or ethnicity: (Check all that apply)
  - a. American Indian or Alaska Native
  - b. Asian
  - c. Black or African American
  - d. Hispanic
  - e. Native Hawaiian or Other Pacific Islander
  - f. White
  - g. Two or more
  - h. Other (please specify)
  - i. I prefer not to answer this question
9. I earned (or am earning) my degree from a college/university best described as:
  - a. An Online Program
  - b. A Face-to-Face Program
  - c. A Combination Program

## APPENDIX B: PROFESSIONAL IDENTITY SCALE

### **Professional Identity Scale**

Adapted from an Organizational Identification Scale developed by:

Mael, F., & Ashforth, B. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, 13(2), 103-123.

#### **SIOP MODIFIED SCALE:**

**[1 = strongly disagree, 2 = disagree, 3 = partially disagree, 4 = partially disagree, 5 = agree, 6 = strongly agree]**

1. I am very interested in what others think about SIOP.
2. When I talk about SIOP, I usually say 'we' rather than 'they.'
3. SIOP's successes are my successes. [1 = strongly disagree, 5 = strongly agree]
4. When someone praises SIOP, it feels like a personal compliment.
5. If a story in the media criticized SIOP, I would feel embarrassed.

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