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Entrepreneurship inside and out: Three essays exploring the interplay between hybrid entrepreneurs and their organizational employee roles

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ENTREPRENEURSHIP INSIDE AND OUT:
THREE ESSAYS EXPLORING THE INTERPLAY BETWEEN HYBRID
ENTREPRENEURS AND THEIR ORGANIZATIONAL EMPLOYEE ROLES

A Dissertation
presented in partial fulfillment of requirements
for the degree of Doctor of Philosophy
in the Department of Management
School of Business Administration
The University of Mississippi

by
DAVID R. MARSHALL
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ABSTRACT

A growing body of research focuses on undertaking new venture creation while remaining employed in existing organizations. Known as hybrid/part-time entrepreneurship, scholars suggest most entrepreneurs engage in entrepreneurship in a part-time capacity. As such, there exists an interesting space for the study of a new form of interrole dynamics: employee and entrepreneurial role interactions. Through three essays, I conceptually and empirically explore the effects of engaging in hybrid entrepreneurship on outcomes associated with employee and entrepreneurial roles. In Essay One I present a theoretical model of role enrichment from entrepreneurial to employee roles. Specifically, I propose that individuals engaged in entrepreneurship in a part-time capacity develop a unique skillset through entrepreneurial learning which can be effectively applied to tasks in employee roles in the form of recognizing and exploiting opportunities for innovation. In Essay Two, I empirically test these role enrichment hypotheses using a primary data sample of 1,245 employees; many of whom are engaged in part-time entrepreneurship. Results confirm that people engaged in running side businesses exhibit greater innovative behavior at work, especially in work groups that foster climates conducive for innovation and for individuals with goal orientations toward learning. In Essay Three, I examine the potentially negative effects of hybrid entrepreneurship on outcomes in both employee and entrepreneurial roles and test the existence of “work-venture” conflict through a sample of 34 entrepreneurs surveyed over several weeks. Results confirm negative impacts from conflict to satisfaction in employee roles and bricolage behaviors in entrepreneurial roles, and a positive impact on intentions to leave employee roles.
DEDICATION

I think my parents were relieved when I graduated high school; I quickly claimed I was “done with school.” Excitement ensued following successful completion of undergraduate studies, and I was sure this time that I was “done with school.” Two master’s degrees seemed the pinnacle of my educational studies and I definitively claimed to be “done with school.” I certainly never believed in my own abilities and ambitions to achieve doctoral status; therefore, I am truly blessed to have an amazing support unit continually pushing me further than my own expectations. Inspiration from Grandpa and Grandma, encouraging words from Mom, reassurances from Dad, compliments from Sisters, immovable support from Wife, unconditional love from Children, and tender mercies from God have made all the difference. I humbly dedicate this work to my faith and my family.

A special dedication is in order for my amazing wife, Shauna. Impossible does not begin to describe completion of this project or doctoral training without her constant support and encouragement. Unlike many other students, the late nights, early mornings, weekends away, sour attitudes, extended venting, dwindling bank account, and fluctuating waistline were rarely acknowledged and never complained of. As such, this accomplishment is as much yours as it is mine.
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Essay One:

Two Sides to Every Story: Exploring the Innovative Behavioral Spillover from Part-Time Entrepreneurs to Their Primary Jobs

“The vast majority of people who found new firms are employed at the time they identify the opportunities that they exploit through firm formation...That is, firm formation simply represents a choice about how many people would like to exploit opportunities they have identified while working for others.” – Scott Shane, 2012

A substantial body of literature is focused at the intersection of organizations and entrepreneurship; that is, how elements of, and experiences in, organizations influence individuals to pursue new venture creation outside of their existing, employment organizations (Sørenson & Fassiotto, 2011). Researchers have examined how coworkers (Nanda & Sørenson, 2010), organizational structures (Kacperczyk, 2012), organizational cultures (Lee, Wong, Der Foo, & Leung, 2011), firm prominence (Bazzazian, 2012), and internal incubator programs (Allen & Rahman, 2007) influence venturing outside of existing organizations. Much of this research stems from a sociological perspective and is role centric (Dobrev & Barnett, 2005; Hoang & Gimeno, 2010). For example, Dobrev & Barnett (2005) suggest an individual’s organizational role as a founder or member of a firm alters the likelihood of moving from an organizational employment role to an entrepreneurial, self-employment role. Summarizing the vast number of studies examining organizational influences on individual firm formation scholars suggest organizational roles offer enhancement of knowledge, skills, values, social
capital, and opportunities needed for the development of entrepreneurial roles associated with venture creation (Sorenson & Fassiotto, 2011).

While this stream of literature has been impactful in improving our understanding of important drivers of entrepreneurship, it is an inherently one sided approach favoring the influence of organizational roles on individual entrepreneurship. Recent research concerning different forms of entrepreneurship however, offers a unique opportunity to explore another side of the relationship between organizations and entrepreneurship. Scholars have begun paying greater attention to individuals who maintain organizational employment while creating their new ventures (Folta, Delmar, & Wennberg, 2010). As stated by Shane (2012) in the quote commencing this paper, it is likely that most people starting entrepreneurial roles as new venture founders do so while balancing their roles as organizational employees. While these “hybrid” or “part-time” entrepreneurs (Petrova, 2012; Raffée & Feng, 2014) may have benefited from, or are products of, their employing organizations, we know very little about how long they remain in a state of transition from organizational-employment to self-employment. It is possible that many people spend a great deal of time, perhaps even entire careers, in “hybridity;” running side business while remaining employed in their primary organizations. Therefore, because many entrepreneurs are dually engaged in both organizational (wage-employment) roles and entrepreneurial (self-employment) roles simultaneously, there exists potential for entrepreneurial roles to affect organizational roles. Hence, the focus of this paper is to conceptually explore this previously unexplored side of the interplay between organizations and entrepreneurship; specifically, how engaging in a part-time entrepreneurial role can enhance entrepreneurial behavior in a primary organizational role.
Role theory suggests that the accumulation of roles or engagement in multiple, simultaneous roles, may produce positive experiences for an individual (Sieber, 1974). Voydanoff (2001), argues that positive experiences in one role can produce positive outcomes in another role through a transferring or expansion process (Marks, 1977). This process is often referred to as positive spillover or role enhancement and has been heavily drawn upon in exploring various role interdependencies such as the work-family role dynamic (Greenhaus & Powell, 2006). While literature has been preoccupied with how organizational knowledge and skills can aid in the development of an entrepreneurial role, I propose that the unique knowledge and skills entrepreneurs gain through venturing processes, different from what is gained through organizational roles, can “spill over” to the organizational role and be applied to organizational work tasks. This argument is based on entrepreneurial learning theory which suggests entrepreneurs develop exploratory and exploitative innovative behavioral capabilities through venture creation (Politis, 2005; Wang & Chugh, 2014). By engaging in entrepreneurship outside of the organization, an individual develops a greater ability to identify opportunities to innovate and improve organizational tasks. This is an important proposition given the value organizations place on the abilities of employees to act entrepreneurially in their organizational roles (Ireland, Kuratko, & Morris, 2006). Thus, the primary purpose of this paper is to participate in the tradition of “creative play” in entrepreneurship scholarship (Sarasvathy, 2004) through theoretical exploration of an otherwise ignored phenomenon in entrepreneurship and organizational behavior: the extent to which engaging in entrepreneurial roles outside of the organization (while maintaining organizational employment) affects innovative behavior in primary organizational roles.
To provide theoretical clarity, I begin by describing in greater detail literature focusing on the positive spillover from organizational roles to entrepreneurial roles. I then provide an overview of the hybrid/part-time entrepreneurship literature and review entrepreneurial learning theory to support the assertion that part-timer’s gain unique knowledge, skills, and abilities through entrepreneurial experience. Grounded in role accumulation and enrichment theories, I then present a conceptual model explaining the potential spillover from a part-time entrepreneurial role to an organizational role and explore some important boundary conditions of this model such as individual goal orientations, organizational role salience or centrality, and organizational climate. Consistent with the literature regarding role enrichment, I focus this theory on positive role spillover (Barnett, & Baruch, 1985). However, I recognize that roles often conflict rather than enrich one another and are bi-directional in nature (Greenhaus & Powell, 2006; Rizzo, House, & Lirtzman, 1970). Accordingly, although it is beyond the theory developed here, negative role spillover between part-time entrepreneurial roles and organizational roles is certainly possible and expected, and I revisit this idea in the Discussion section. Additionally, I discuss the opportunity to enrich both entrepreneurship and organizational behavior research in several ways by paying greater attention to part-time entrepreneurs and the time spent in career hybridity.

**LITERATURE REVIEW**

Entrepreneurship research is concerned with “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (Shane & Venkatraman, 2000, p. 218). While the focus of entrepreneurship research seems clearly stated, conceptualizations of entrepreneurs and definitions of entrepreneurship continually lack clarity and are sources of confusion. For some,
entrepreneurship is a source of value creation by a heroic figure in a capitalistic economy (Williams & Nadin, 2013). For others, such as a labor economics view, entrepreneurship is simply an individual decision to be employed by oneself rather than by an existing organization (Blanchflower, 2000). In this paper, engagement in the creation, management, and ownership of a venture is referred to as an entrepreneurial role and is distinguished from an organizational role in which an individual is a contributor to an existing organization as an employee.

**Organizations and Entrepreneurship**

That organizational and entrepreneurial roles are interdependent is highlighted by Freeman’s (1986) work concerning entrepreneurs as products of organizations. From this idea, scholars have examined a host of organizational factors and individual experiences in organizational employment which affect the likelihood of entering entrepreneurship and engaging in other entrepreneurial processes. Some studies highlight moves to entrepreneurship due to some conflict between an individual and the organization. For example, restrictions in terms of organizational advancement opportunities may drive an individual to undertake new venture creation (Sørensen, & Sharkey, 2014). Another recent study suggests that organizations lacking in opportunities for employees to practice entrepreneurship inside the firm (intrapreneurship) will lose employees to entrepreneurial roles in greater number than organizations which encourage and offer space for the development of entrepreneurial ideas (Kacperzyk, 2012). Similarly, Gambardella, Ganco, and Honore (2014) demonstrate that when employees develop new inventions they are likely to start new ventures if the existing organization does not see value in their new ideas. Additionally, several studies advance the idea that employment in certain organizational structures can constrain new venture creation such as working for large, bureaucratic firms (e.g. Sørenson, 2007).
Despite these more “negative” views of organizational influences on the development of entrepreneurial roles, scholars also recognize more “positive” experiences taking place in organizations which influence development of an entrepreneurial role. Largely these studies point to the human and social capital developed inside existing organizations which are put to good use in creating new ventures. Lazear (2004) popularized the idea of a “jack-of-all-trades” entrepreneur in that an individual with different organizational career experiences develops a diverse set of skills and expertise necessary for success in entrepreneurship (Silva, 2007). Agarwal and colleagues (2004) found that the survival rate of new venture spin-outs were contingent on the value of knowledge transferred from the parent company. Likewise, Burton, Sørensen, & Beckman (2002) argue that entrepreneurs may benefit from information and knowledge advantages used to identify viable opportunities for new ventures. Gompers, Lerner, and Scharfstein (2005) suggest that a great deal of entrepreneurship specific knowledge is gained from employment in small firms and that these employees develop social networks necessary for new venture success. Another interesting study suggests that employees of high quality firms or those with high status and prominence as being entrepreneurially focused may have access to greater learning and skill development useful for starting new ventures (Bazzazian, 2012). The study also suggests that employees of high status organizations have access to industry information critical for identifying successful opportunities for new venture creation which employees of lower status firms simply do not possess.

One way organizational experiences increase an entrepreneur’s social capital is through coworker interactions. Several studies point out the unique and positive effect that coworker experiences have in shaping entrepreneurial entry and success of the new venture. Nanda & Sørensen (2007) state that coworkers with prior entrepreneurial career experiences can increase
the ability of an individual to recognize entrepreneurial opportunities. Interestingly, they find that coworker entrepreneurial experience may have a substitution effect on individuals with little of their own exposure to entrepreneurship. Stuart & Ding (2006) suggest that scientists working for universities are motivated to pursue entrepreneurship because their social networks within the university are extremely pro-entrepreneurship and have a history of former coworkers leaving organizational roles in favor of entrepreneurship. Thus, there exists access to advice and rich information concerning entrepreneurial processes. In the same vein, Kacpercyk (2012) posits that peers in an organization offer information and insights into new venture opportunities and finds that the entrepreneurial behaviors of these peers drive entrepreneurial entry. Additionally, new entrepreneurs may benefit beyond learning experiences from having worked for reputable firms (Sørensen & Fasiotto, 2011). For example, Burton et al (2002) found that important resources such as external financing were available to new entrepreneurs who previously worked for entrepreneurially prominent firms or those with high reputations.

As mentioned previously, this body of literature focusses primarily on the effects of organizational roles on entrepreneurial roles while avoiding the potential for the entrepreneurial role to affect the organization. Some recent literature, especially studies devoted to examining spin-out’s does approach this unexplored side of the relationship. Several studies examine the performance effects of spin-outs on parent companies and generally find negative impacts due to employee turnover costs, loss of employee knowledge, and interruption in organizational routines (e.g. Campbell et al, 2012). However, recent studies (e.g., Ioannou, 2013; Mckendrick, Wade, and Jaffee, 2009) suggest there are positive effects to the organization when employees leave for new venture creation as well. These studies suggest the act of employees leaving the firm in favor of entrepreneurship disrupts organizational inertia. An employee “spinning-out” of
the firm in favor of entrepreneurship alerts the organization of a potential misalignment between itself and the environment, prompting a future realignment. These scholars find support for this positive outcome of employee entrepreneurship in that firms with a great deal of spin-outs outperform firms without any spin-out activity. These studies point to the importance of considering how the organization is impacted by entrepreneurship, and hybrid entrepreneurship provides the space necessary for an individualized, role-centric exploration of these effects.

Hybrid/Part-Time Entrepreneurship

An assumption made in the previously reviewed studies of the organization-entrepreneurship relationship is that organizational employment roles and self-employment, entrepreneurial roles are mutually exclusive. Indeed, the greater body of entrepreneurship literature, particularly the stream which examines entrepreneurship as a career, is based on a dichotomous choice between the two employment domains (Douglas & Shepherd, 2002; Dyer, 1994). Few studies, save those examining the careers of freelance contractors (Fenwick, 2006), have paid adequate attention to the possibility that individuals might spend significant amounts of time in both organizational and self-employment domains or hybrid employment positions. However, both popular and scientific studies acknowledge the existence of organizational-entrepreneurship employment mixing (See Table 1).

"Insert Essay One Table 1 Here"

The popular entrepreneurship magazine Entrepreneur has published several articles focusing on the advantages of starting a part-time entrepreneurial venture while maintaining full-time, organizational employment and how to maintain successful part-time entrepreneurship for an extended period of time (Entrepreneur, Goodman, 2005; Zwilling, 2014). Likewise, research in labor economics has examined individual time “mixing” between organizational and self-
employment (Parker, 1997). Folta et al., (2010) found that in 2001, roughly 44% of entrepreneurs in their sample were part-time venturing only. Burke et al. (2008) observed entrepreneurs over several years and found that individuals varied in their levels of “die-hardedness” to entrepreneurship, challenging the popular assumption that if one wants to be successful in entrepreneurship one must commit 100% of time and resources to the venture. The authors discovered that individuals tended to participate in both paid-employment and self-employment work simultaneously in greater numbers than those dedicated solely to entrepreneurship.

Based on these findings, hybrid and part-time forms of entrepreneurship have recently gained traction in management and entrepreneurship literatures (See Table 1). Though studies vary somewhat in their definitions of this unique form of entrepreneurship, part-time and hybrid entrepreneurship appear to be generally interchangeable terms describing situations in which individuals maintain full-time, organizational employment roles while engaging in part-time entrepreneurial roles. This definition is important in distinguishing part-time/hybrid entrepreneurs from similar types of self-employed workers such as portfolio workers and contractors. Portfolio workers are described as working for multiple organizations or clients over the course of their careers (Cohen & Mallon, 1999). However, portfolio workers and other types of contractors are not simultaneously engaged in both venturing and organizational or wage-employment.

Most of the work regarding part-timers assumes that simultaneous role engagement is mainly a transitional stage in which eventual full-time entrepreneurial entry will occur. For example, Folta et al. (2010) tested a transitional model from organizational to self-employment and found that only entrepreneurs who had a high level of self-employment to wage-employment income ever transitioned to full-time entrepreneurship. Petrova (2012) examined one of the
potential benefits of part-time entrepreneurship during the start-up stage. She hypothesized and found that maintaining organizational employment while working only part-time on the venture would reduce the risk of being financial constrained and indeed finds that part-timers report having greater access to capital than full-timers and report less concern of the venture facing financial difficulty. Raffiee and Feng (2014) also view part-time entrepreneurship as a transitional stage and find that ventures operating on a part-time basis have higher survival rates than those operating on a full-time basis. However, recent research finds that not all part-time entrepreneurs leave the hybrid stage and may remain part-timers indefinitely (Thorgren, Sirén, Nordström, & Wincent, 2016).

While the study by Folta et al (2010) does not address all the possible motivations for engaging in entrepreneurship in a part-time capacity such as for extra income, to explore a hobby, have a learning experience, or to eventually transition to full-time entrepreneurship, it does examine a few of the possible determinants and characteristics of hybrid entrepreneurial entry. For example, the study finds that a hybrid form of entrepreneurial entry is preferred by individuals with little prior entrepreneurial experience, high levels of education, less time spent unemployed, and less overall work experience. Similarly, Raffiee and Feng (2014) draw on real options theory and hypothesize and find evidence that hybrid entrepreneurship provides a less risky path into entrepreneurship which is preferred by risk averse individuals with low core self-evaluations. Block and Landgraf (2014) attempt to dive deeper into the motivations of part-timers and how different motivations affect the transitionary stage. Their findings suggest that part-time entrepreneurship as a transitionary mechanism may be less about financial incentives and more about the non-monetary benefits of entrepreneurship as those motivated by money were less likely to move to full-time entrepreneurship than those driven by self-realization and
independence factors. This study in particular calls into question the assumption that hybrid/part-time entrepreneurship is only/always a transitional state from organizational employment to full-time self-employment. Transition from part to full-time entrepreneurship may also be a function of the amount of time an individual is willing and able to commit to the new venture which may be different for each individual entrepreneur (Burmeister-Lamp, Levesque, Schade, 2012).

Mentioned in nearly all the scarce studies concerning this important form of entrepreneurship is the potential learning benefit of engaging in venture creation and management on a part-time basis. Although no study directly conceptualizes or tests what is learned through part-time entrepreneurship, Raffiee and Feng (2014) suggest that the survival rate of a new venture is affected by an individual’s prior entrepreneurial experience. The authors state that “hybrid entrepreneurs benefit from the ability to learn about the quality, potential, and feasibility” of their venture opportunities (p. 941). Additionally, these studies suggest hybrid entrepreneurship offers participants the “potential to learn” (Folta et al, 2010, p. 265), sends “a signal about their entrepreneurial ability” (Petrova, 2011, p. 64), the “ability to learn about their entrepreneurial skills, capabilities, and fit within the entrepreneurial context” (Raffiee & Feng, 2014), and a “learning-by-doing” context (Petrova, 2012, p. 489). Thus, not only do part-timers gain the opportunity to learn about the venture and its potential value, they also have the potential to increase their personal knowledge, skills and abilities through venturing. Entrepreneurial learning theory provides a closer look at what may be gained through entrepreneurial processes and experiences.

**Entrepreneurial Learning**

Entrepreneurial learning theory has emerged at the intersection of organizational learning and entrepreneurship research. This highly fragmented field of research ranges from studies
examining learning at the venture level, the collective entrepreneurial team level, and the individual entrepreneurial level (Erdélyi, 2010). While there is a great deal of literature concerning theses multiple levels and dimensions of learning in entrepreneurship, the vast majority of contributions have been made at the individual level. A review of the individual level body of research is appropriate for this paper as the focus here is on individual learning spillover from entrepreneurial roles to organizational roles. From an individualistic perspective, a plethora of conceptualizations and definitions of entrepreneurial learning exist. Such definitions include the “learning experienced by entrepreneurs during the creation and development of a small enterprise” (Cope, 2005, pg. 374); “learning to work in entrepreneurial ways” (Rae, 2000, p. 151); “learning in entrepreneurial contexts” (Harrison & Leitch, 2005, p. 361); and “how entrepreneurs accumulate and update knowledge” (Minniti & Bygrave, 2001, p. 8). While there are many more available definitions, “learning in the entrepreneurial process” (Wang & Chugh, 2014, p. 26) provides a broad view of entrepreneurial learning necessary to conceptualize the many aspects of individual learning which may take place through engagement in different forms of entrepreneurship such as hybrid entrepreneurship.

Studies of entrepreneurial learning at the individual level mainly take a cognitive approach to answering how, when, and what individual entrepreneurs learn through entrepreneurial processes and various entrepreneurial contexts. The most dominant context in which entrepreneurial learning is conceptualized and examined is new venture start up’s (e.g. Honig, 2001). This context provides the closest look at how individuals change through their entrepreneurial experiences and gain unique skills and abilities. Other studies are focused on more general contexts of entrepreneurial learning such as through the overall entrepreneurial opportunity recognition and development process (Dimov, 2007; Politis, 2005).
As implied in the presented definitions, learning through entrepreneurial processes is mostly experiential in nature; that is, learning takes place through entrepreneurial experiences. An individual engaged in entrepreneurship transforms experiences into knowledge structures which can be drawn upon for future decision making and affect future behavior (Kolb, 1984). For example, Cope (2003) examines entrepreneurial learning through challenging, discontinuous events which require unique attention and experimentation. Others have explored the important learning which takes place through failure experiences (Cope, 2011, Shepherd, 2003; Shepherd, Covin, & Kuratko, 2009). In order to explain how individuals learn through entrepreneurial processes, scholars have also drawn from the organizational level learning concepts of exploratory and exploitative learning (March, 1991). Wang & Chugh (2014, p. 37) explain the difference between these two types of learning mechanisms at an individual level:

Exploratory learning emphasizes discovery through enactment and interpretation to generate enough variations that some will prove ex post to yield desirable results, while exploitative learning focuses on directed search that is amenable to ex ante planning and control to limit variety achieved by honing in on and deepening initial insights as experience increases.

Thus, individuals engaged in entrepreneurship may develop new knowledge as they break from existing knowledge patterns and/or continue acquiring knowledge similar to these existing knowledge bases (Bingham & Davis, 2012; McGrath, 2001). For example, Parker (2006) examined how entrepreneurs engage in both exploratory and exploitative information seeking behavior and how beliefs are adjusted following this activity.

Critical to the model presented in this paper is “what” is actually learned through entrepreneurial experiences. Unfortunately, few studies delve deeper than subsequent venture
performance and into the specific potential knowledge, skills, and abilities that entrepreneurs learn through their experiences. Rather, most studies reference only a generalized entrepreneurial knowledge. Some studies point to learning outcomes such as general business skills and knowledge (Lamont, 1972; Politis, 2005), effective management of people and resources (Cope, 2003), greater capacity for creativity (Ravis & Turati, 2005), organizing skills and knowledge (Holcomb, et al, 2009), and networking and interpersonal skills (Taylor & Thorpe, 2004).

Perhaps the most important learning development through entrepreneurial experiences is the ability of entrepreneurs to engage in exploratory and exploitative behavior (Politis, 2005). Indeed, several scholars suggest the key outcome of entrepreneurial learning processes is an ability to recognize and act on opportunities for innovation (Baron & Ensley, 2006; Corbett, 2002; Ronstadt, 1998). This idea links closely with what other scholars have proposed as an outcome of entrepreneurial experiences such as entrepreneurial knowledge. A well cited definition of entrepreneurial knowledge includes the “concepts, skills, and mentality which entrepreneurs use or should use” (Jack & Anderson, 1999). Similarly, Alvarez and Busenitz (2001) conceptualize entrepreneurial knowledge as “the ability to take conceptual, abstract information of where and how to obtain undervalued resources, explicit and tacit, and how to deploy and exploit these resources” (p. 762). Thus, the emphasis on an ability to both explore and exploit through innovation.

**PART-TIME ENTREPRENEURIAL ROLE SPILLOVER**

The assumption underlying entrepreneurial learning theory is that entrepreneurs direct their newly acquired knowledge and skills solely to work in their entrepreneurial roles. However, Cope (2003) suggests that entrepreneurial experiences also result in a “higher level” of learning in which the entrepreneur develops in other aspects of life and not simply in terms of the venture.
Accordingly, the outcomes of entrepreneurial learning might be applied to other individual roles and part-time entrepreneurs then, possess a unique opportunity. While full-time entrepreneurs may focus their learning to future venture endeavors, part-time entrepreneurs may direct developed entrepreneurial skills and knowledge to either their venture role, organizational role or both simultaneously. It is the translation of learned entrepreneurial innovation skills from engaging in part-time entrepreneurship to the application of innovative behaviors in the organizational role that I consider here.

“Insert Essay One Figure 1 here”

Scholars suggest that an individual’s role can be enriched, enhanced, or improved through the simultaneous engagement in an additional role or the accumulation of many roles (Marks, 1977). Though engagement in simultaneous roles can enlarge the overall well-being of the individual (Cope, 2003), it is the transfer of positive experiences from one role to another role that is most applicable to the entrepreneurial to organizational role spillover model presented in Figure 1. Greenhaus and Powell (2006) suggest two paths through which positive role spillover can occur; an instrumental path and an affective path. The instrumental path is characterized by a direct transfer of resources from one role to the other while the affective path is an indirect path in which resource accumulation in one role increases positive feelings and facilitates functioning in another role. In this paper, I base the role spillover argument on the instrumental, direct path only for two main reasons. First, the organizational role to entrepreneurial role literature previously reviewed mainly deals with the direct transfer of resources developed in the organization and therefore by staying within the bounds of a direct path, I remain consistent with this literature stream. Second, reasons for increases to one’s positive affect from engaging in an entrepreneurial role might be based on arguments that an
individual uses entrepreneurship as an outlet for creative and innovative desires which cannot be satisfied in the organizational role (Lee, et al, 2011). Therefore, one may feel better about, and perform better in the organizational role because of the opportunity for creative release in outside entrepreneurship. However, this idea conflicts with the logic presented through the instrumental path in which entrepreneurial knowledge, in particular innovativeness, can be applied in the organizational role and may speak more to role conflict arguments which are not considered here. However, I briefly revisit implications and future directions associated with the affective spillover path in the Discussion section.

According to Greenhaus and Powell (2006), the instrumental path of role spillover requires two important conditions for successful role spillover or enrichment to take place. First, resources must be generated in a specific role (Friedman & Greenhaus, 2000). Second, these resources must be of some value to, or required by, the receiving role or the role to be enriched, in order for performance in the receiving role to be influenced. For example, performance in a family role may require money for paying bills and providing family necessities for family members and therefore one’s work role provides the income resources necessary for the quality of the family role to be enriched (Greenhaus and Powell, 2006).

In terms of the first condition, Greenhaus and Powell (2006) suggest that resources are assets developed through enactment of a specific role and can take a variety of forms such as human capital, social capital, flexibility, and physical resources such as money. Based on the previous discussion of entrepreneurial learning theory, I focus on the human capital resources developed in a part-time entrepreneurial role. While spillover from the venture to the organization may come in many forms such as managerial and networking abilities, I propose that the exploratory and exploitative innovative capabilities of recognizing, developing, and
capitalizing on opportunities learned in entrepreneurial roles is a valuable resource for not only success in the entrepreneurial role but in the organizational role as well.

Entrepreneurship, by its very definition requires prior experience and knowledge necessary for the exploration and exploitation of opportunities (Shane & Venkataraman, 2000). Ravasi & Turati (2005) state that “entrepreneurs often deal with new and ill-defined product concepts, whose context of use is still poorly understood and whose commercial applications are not fully explored yet” (p. 138). Thus, entrepreneurs are consistently faced with situations in which they must either draw on previous experiences in making decisions (exploitative) or discovering new ways of innovating (exploratory). Politis (2005) suggests that entrepreneurs transform their learning experiences into knowledge and ability to recognize opportunities for innovation as well as coping with the liability of newness. He explains that an entrepreneur must be “highly explorative” in recognizing and acting on opportunities but also practices relying on “exploitation of preexisting knowledge” in overcoming the typical new venture obstacles through routinized behavior (p. 409).

Just as entrepreneurial ventures rely on the innovative behavior of entrepreneurs (Baron & Tang, 2011), organizations rely on their employees to identify, develop, and advance new ideas and improvements in their employee roles (West, 2002). From a strategic, micro-foundational perspective (Felin, Foss, & Ployhart, 2015), the innovative behaviors of employees underlie the ability of a firm to compete in an ever-changing, global environment through continuous innovation. Thus, employees are being encouraged more than ever to undertake innovative behavior in their respective roles in an organization (Anderson, De Dreu, & Nijstad, 2004). Individual innovative behavior at work then constitutes the second condition of the instrumental spillover path.
Individual innovative behavior at work is an important form of employee discretionary and proactive behavior in organizations; that is, it is considered behavior that goes beyond that which is required in formalized job descriptions (Janssen, 2000). Innovative work behavior is conceptualized as the “intentional creation, introduction, and application of new ideas within a work role” that provides a benefit to role performance or the organization (Janssen, 2000, p. 288). Innovation in a work role is different than creativity, although creativity is certainly an important component of innovativeness. While creativity refers to the introduction of novel ideas (Amabile, 1988), innovation goes beyond idea introduction to include implementation of ideas. Likewise, innovative work behavior is different than other important creative behavioral constructs such as personal innovativeness, which focuses on an individual’s willingness to try new technologies and openness to new ideas (Agarwal & Prasad, 1998), and bricolage which describes one’s ability to satisfy demands through combining limited resources (Baker & Nelson, 2005). Scott & Bruce (1994) describe innovative work behavior as a three-stage process consisting of idea generation, idea promotion, and idea realization or implementation. Each of these three stages relates to learning taking place through entrepreneurial experiences.

The first stage of innovation involves the entrepreneurial process of opportunity recognition. In this stage, the individual identifies gaps in work processes or problems and failures in need of correction and generates novel ideas regarding the resolution and improvement of these challenges (Drucker, 1985). As stated previously, entrepreneurial experience is a breeding ground for opportunity recognition and an entrepreneur is constantly forced to find the incongruities and discontinuities in the market which others fail to recognize (Shane, 2000). The next stage of innovation is the promotion and championing of new ideas in order to gain the necessary sponsorship from peers and leaders for future implementation. For
entrepreneurs, the task of creating momentum around a new idea is paramount in order to get the necessary buy-in from critical stakeholders and may be a unique capability developed through entrepreneurial learning (Taylor & Thorpe, 2004). For example, an entrepreneur may have to sell venture capitalists, customers, suppliers, employees, friend, family members, and governing bodies on their ideas (Pinho, & de Sá, 2013). The final stage of innovative work behavior is actual implementation and application of new ideas in the work role. In this stage, the innovator must transform the idea into something tangible, be it a new product or change in a work process or task that enhances efficiency, production, or profitability of the individual or the organization (Kanter, 1988; Scott & Bruce, 1994).

These three stages of employee innovative behavior align closely with conceptualizations of the exploratory and exploitative capabilities of entrepreneurs previously described. Exploration and exploitation innovation is generally conceptualized at the organizational level (Gupta, Smith, & Shalley, 2006). However, other scholars, especially in the field of entrepreneurship, describe the individual level exploratory and exploitative innovative behavior (Audia & Goncalo, 2007). Exploratory innovation refers to the pursuit of new knowledge for the introduction of new ideas and products, while exploitative innovation relies on combining existing knowledge to make incremental innovative improvements (March, 1991; Benner & Tushman, 2003). While some scholars suggest exploitative and exploratory innovation lie on a continuous spectrum and cannot be enacted at the same time, especially on an individual level (Gupta, et al, 2006; March, 1991), others provide empirical evidence that the two types are orthogonal which allows for individuals, teams, and organizations to engage in both simultaneously, albeit at some degree of difficulty (Taylor & Greve, 2006). A recent meta-analysis suggests the mechanisms required for exploratory and exploitative ambidexterity
become more complex at higher organizational levels (Sarooghi, Libaers, Burkemper, 2015). The study empirically finds that the relationship between exploration and exploitation of ideas is stronger at the individual level than at team and organization levels.

Based on the entrepreneurial learning literature, part-time entrepreneurs may possess the capabilities necessary to accomplish and contribute to the innovative behavioral desires of their primary organizations. These individuals may be more apt than other employees to demonstrate exploratory innovation in the workplace by looking for new ways to improve organizational processes, expand or go beyond management demands, and look for new technologies to improve how work is accomplished. Likewise, these individuals may be more capable of undertaking exploitative innovation by drawing on developed entrepreneurial knowledge structures in making existing processes more efficient and finding synergies among coworkers to accomplish work more effectively.

Proposition 1: The extent to which an individual engages in part-time entrepreneurial roles is positively associated with his/her exploratory innovative behavior in organizational, employee roles.

Proposition 2: The extent to which an individual engages in part-time entrepreneurial roles is positively associated with his/her exploitative innovative behavior in organizational, employee roles.

Individual and Organizational Moderators of the Role Spillover Relationship

Theories explaining the relationships between multiple roles are often bounded by both individual and organizational level factors (Greenhaus & Beutell, 1985; Greenhaus & Powell, 2006). In recent meta-analyses and research articles, scholars highlight some of the most
important of these conditions. Allen and colleagues (2012) show the important effects of individual dispositions such as affect, neuroticism, and self-efficacy. Other studies point to individual goals and career views as having unique and critical effects on role spillover (Direnzo, Greenhaus, & Weer, 2015; Wiese, Freund, & Baltz, 2000). Additionally, Wayne, Randel, and Stevens (2006) find that in work-family role dynamics, the strength of an individual’s identity and emotional support are important moderators of enrichment relationships. Several other studies argue that organizational cultures and climates consisting of supportive policies, rules, and people (leaders) are critical in determining a positive or negative relationship between roles (Butts, Casper, & Yang, 2013; Goh, Ilies, & Wilson, 2015; Grzywacz & Butler, 2005). Based on these many studies, I propose that individual goal orientation, role centrality, and organizational cultures supportive of innovation are important moderators of the proposed part-time entrepreneurial role to organizational role spillover relationships.

Goal Orientation. Like other proactive and discretionary work behaviors, individual innovation is a process of self-directed goals and is, at least partially, driven by one’s motivation (Kanter, 1988; Locke & Latham, 1990; West, 2002). Individual goal orientation then, can help to explain how individuals are motivated to undertake learning through entrepreneurial experience to encourage their development of entrepreneurial capabilities useful in the achievement situations in the primary organization. Likewise, differences in individual goal orientations potentially offer the motivational processes influencing the positive transfer of entrepreneurial knowledge and abilities to primary organizational roles.

Goal orientation was originally proposed as a two-factor individual trait to describe goal preferences in achievement situations (Dweck, 1986). Goal orientation is a function of a person’s self-developed beliefs which affects how he/she will interact with the environment and situation.
Researchers advanced the notion that people held either an orientation for learning in which a situation or task is approached with the goal of learning through the specific challenges of the situation, or with a performance orientation in which the situation is approached with the goals of gaining favorable, or avoiding negative, judgements from others regarding one’s competence (Dweck & Leggett, 1988). Dweck’s (1986) work with children in education demonstrated that a performance orientation guides people to focus on the end result in situations rather than on the process of learning and development through the situational experience. Generally, the opportunity to demonstrate competence through performance of a task relative to others comes at the expense of the opportunity to learn. Dweck’s (1986) ideas were based on theories of intelligence such that a belief that intelligence and ability are fixed assets leads one to adopt a performance orientation whereas a belief that one can incrementally increase intelligence and ability likely results in a learning goal preference (Bandura & Dweck, 1985).

Organizational scholars have been quick to integrate goal orientation concepts into organizational behavior work as they recognized the capacity of goal orientation in predicting individual attitudinal and behavioral differences (Maehr, 1983). VandeWalle and colleagues (1999) found support for Dweck’s propositions as individuals employing performance orientations were more likely to exhibit desires to impress peers and supervisors in the workplace through their capabilities and achievements, while learners were more likely to demonstrate a desire to master respective tasks and develop their abilities (Brett & VandeWalle, 1999; VandeWalle, et al, 1999). These studies further elaborated on the factor structure of goal orientations both conceptually and empirically by partitioning performance orientation. “Prove” performance orientation is characterized by the desire to gain favorable judgments from others.
regarding one’s competence while “avoid” performance orientation describes a desire to elude unfavorable judgements regarding one’s competence. Recently, some scholars have even suggested that learning orientation should be partitioned into two distinct factors “approach” and “avoid” (Pintrich, 2000). However, most scholars have continued relying on the three-factor approach in both conceptualizing and examining goal orientation (Payne, Youngcourt, & Beaubien, 2007).

As a multidimensional construct, goal orientation can be considered both trait-like in demonstrating stability over time and state-like in varying from situation to situation. While each type, or factor of goal orientation is distinct from the others, most scholars agree that learning, prove-perform and avoid-perform orientations are not mutually exclusive; that is, “it is possible for an individual to simultaneously strive to improve one’s skills and to perform well relative to others” (Button, Mathieu, and Zajac, 1996, p. 28). Each type of orientation has been related to a variety of important attitudinal and behavioral outcomes in the workplace such as self-efficacy (Phillips & Gully, 1997), creativity (Gong, Huang, & Farr, 2009), citizenship behaviors (Bettencourt, 2004), feedback seeking behavior (VandeWalle & Cummings, 1997), training performance (Brett & VandeWalle, 1999), and overall job performance (Porath & Bateman, 2006).

Important to this study is the effect an individual’s goal orientation has on learning experiences as part-time entrepreneurship has been proposed as a context in which exploratory and exploitative learning takes place and translates to innovative work behaviors in the primary organizational role. Research suggests that people with a learning orientation tend to develop an adaptive response pattern in which they exhibit “persistence in the face of failure, complex learning strategies, and the pursuit of difficult and challenging material and tasks” (Bell &
Kozlowsky, 2002, p. 498). Evidence also suggests that a learning orientation is related to greater motivation to learn through experience, especially when the experiences are challenging and complex (Colquitt & Simmering, 1998). Therefore, when learning is defined as the acquisition of knowledge, learning goal orientation is positively related to individual learning (Payne, et al, 2007).

Learning orientation is linked with a willingness to allocate a significant amount of effort to the learning process and to increasing ability for future achievement (Bell & Kozlowski, 2002). Chadwick & Raver (2015) posit that individuals with learning orientations are likely to have proactive learning experiences because of their implicit beliefs that these experiences will expand their competencies. Thus, individuals with learning orientations may be motivated to engage in exploratory learning in their new ventures in order to generate new entrepreneurial knowledge. Additionally, venture creation and management are generally considered challenging and complex experiences; perfect contexts for learning (Harrison & Leitch, 2005) which then provides the space necessary for learners to discover new individual abilities and innovative competencies. Likewise, because learner’s embrace the potential for learning through failure, they are more likely to draw on their entrepreneurial experiences in exhibiting exploratory innovative behavior in the workplace which is riskier than incremental innovation (Alexander & Van Knippenberg, 2014). Individuals with a learning orientation should therefore engage in a richer learning experiences in new venture creation and be willing to find innovative solutions to problems faced in the workplace.

*Proposition 3: Learning goal orientation moderates the association between engagement in part-time entrepreneurial roles and exploratory innovative behavior in organizational-
work roles, such that the association will be more positive for persons high in learning goal orientation.

In contrast to learning orientation, prove-performance orientation generally leads to resistance to challenging tasks and situations and lower likelihood of trying again after failing (DeShon & Gillespie, 2005). The motivation for learning may be less pronounced in performers than in learners as these individuals seek to simply demonstrate their competence but view their abilities as somewhat fixed assets (Vandewalle, 2001). Prove-performers are more likely to engage in exploitative learning opportunities in order to refine rather than expand their existing knowledge bases in order to more quickly outperform others (Chadwick & Raver, 2015). Part-time entrepreneurs with a prove-perform goal orientation might then be those involved in self-employment for financial and other status and recognition rewards rather than for self-realization, innovation, and independence reasons (Gartner, Shaver, Gatewood, 2003). Consequently, these part-timers may gain greater exploitative innovative skills and be more willing to demonstrate these behaviors in their primary work roles. As mentioned previously, exploitative innovative in the workplace may be less risky and therefore, prove-performing part-time entrepreneurs will be more inclined to draw on their entrepreneurial knowledge in making more incremental improvements in their organizations. Additionally, exploitative innovation may provide the quicker recognition results that prove-performers desire strengthening the transfer of exploitative learning from venture experiences to exploitative innovation in work roles.

Proposition 4: Prove-performance goal orientation moderates the association between engagement in part-time entrepreneurial roles and exploitative innovative behavior in
organizational-work roles, such that the association will be more positive for persons high in prove-performance goal orientation.

As mentioned previously, avoid-performance goal orientation is characterized by avoiding any potential negative performance perceptions (Vandewalle, 1997). Of avoid-performers and learning situations, Hirst and colleagues (2009) state:

Learning new knowledge and skills and applying them in the development of creative solutions to work problems is unpredictable and associated with the risk of setbacks, errors and failures…avoidance-oriented individuals may shy away from learning activities and creative challenges.

Because avoiding failure is the motivating factor driving, an individual with avoid-perform orientation is unlikely to take part in exploratory or exploitative learning opportunities (Chadwick & Raver, 2015). Further avoid-performance oriented individuals may be unlikely to transfer entrepreneurial learning to entrepreneurial behavior in the primary organizational role because they are unable to recognize the important information embedded in learning experiences or how to effectively implement this information in new situations and to new problems due to an overload of potential performance avoiding situations present in learning and innovation opportunities (Chadwick & Raver, 2015; Sutcliffe & Weick, 2008).

Proposition 5: Avoid-performance goal orientation moderates the association between engagement part-time entrepreneurial roles and exploitative and exploratory innovative behavior in organizational-work roles, such that the associations will be negative for persons high in avoid-performance goal orientation.
**Employee Role Orientation.** Another important factor influencing the potential spillover from an entrepreneurial role to an organizational role is the importance an individual places on a specific role. That is, the value ascribed to a specific role helps to determine the amount of effort devoted to the role and willingness to apply skills gained in one role to another (Greenhaus & Powell, 2006). In this case, people engaged in part-time entrepreneurship may care very little or a great deal about their primary organizational jobs, which influences inclinations to pull from their new sources of knowledge and skills and enact innovative behaviors at work and not just in the venture. Willingness to exert effort or enact behaviors consistent with expectations in a given role are a function of an individual’s role identity.

Social identity theory (Burke, 1991; Stryker, 1968) suggests that self-concepts, or how people view themselves, are composed of hierarchies of role identities. Role identity refers to the meaning people attribute to themselves within a specific role and is defined both by social structures surrounding the role and by the individual (Turner, 1978). The hierarchy of an individual’s identities is generally arranged according to the salience or importance placed on a given role by an individual. Also referred to as role centrality (Serpe, 1987), individuals place more value, emphasis, and priority on some roles than others (Thoits, 1991). The value an individual assigns to a role affects the cognitive processes associated with making decisions to act and behave in certain ways (Meglino & Ravlin, 1998); either in line with or in disharmony with performance requirements dictated by the specific role (Chang, Piliavin, & Callero, 1988; Stryker, 1968). Thus, the more salient a given role, the more important it becomes for an individual to perform well within this role in order to maintain the self-concept and identity associated with the role (Carver & Scheirer, 1982; Schwartz, 1994; Stryker & Serpe, 1994).
Research suggests role identity and the expression of role salience and centrality are critical elements in determining whether roles conflict or enrich. For example, Carlson and Kacmar (2000) explore the effects of valuing work more than family and find that persons placing a greater emphasis on their work life tended to experience greater conflict with their family roles. Similarly, Carr et al., (2008) examine the moderating effect of work-family centrality on different job outcomes and find that the relationships between work-family conflict, organizational commitment, and turnover are attenuated when work roles are more central to an individual’s life. Thus, the emphasis placed on differing roles certainly affects attitudes and behaviors within each role such that “the more salient the role identity, the higher the probability that the individual will behave consistently with that identity” or role (Charnig, et al., 1988).

One way of assessing the primary, organizational role identity and role salience is through evaluation of the meaning employees ascribe to their work (Walsh & Gordon, 2008). Wrzesniewski et al., (1997) suggest people view their work roles in three distinct ways: as jobs, careers, and callings. Persons viewing their work as merely “jobs” are generally those interested in only the external or material benefits associated with the work. For these workers, a job is simply a means to an end and are therefore unlikely to create a strong work-role identity in their organization. Alternatively, people viewing their work as a career have a much deeper relationship with their work roles and link their identities with their respective job titles. Finally, individual’s viewing work as a calling develop a distinct and unique identity in their work roles. For these people, work is inseparable from everyday life and their work shapes their very self-concept in that individuals define themselves in terms of their occupation. Thus, for individual’s viewing work as a calling, work roles are extremely salient and therefore a great deal of cognitive energy and physical effort is exerted to produce successful role outcomes.
I propose that part-time entrepreneurs who also identify significantly with primary work roles in that they view their work as a calling, are more likely to focus their learned entrepreneurial knowledge and skills to the betterment of the primary organizational role than those who view their primary organizational roles as a career or a job only. Kreiner, Hollensbe, and Sheep (2006) state that work roles with “a strong sense of calling often push individuals toward a high degree of overlap” between roles (p. 1040). As such, those with a salient organizational work role by viewing the role as a calling will look for ways to innovate within the primary organization to promote organizational success. However, part-timer entrepreneurs identifying very little with the primary work role, viewing work as simply a means to an end, may be more inclined to devote their entrepreneurial skillset to the side venture. Perhaps for these individuals, part-time entrepreneurship is simply a transitional stage (Folta et al, 2010; Raffiee & Feng, 2014) and the primary organization will reap very little benefit or positive spillover from the individual entrepreneurial endeavor.

That those viewing organizational roles as callings are more likely to transfer their exploratory and exploitative skillset from entrepreneurial roles to organizational roles than those with a “career” or “job” view only, is based on three important points regarding viewing work as a calling. First, when an individual views the organizational role as a calling the role becomes uniquely intertwined with the self-concept and identity such that the role makes up a portion of one’s “whole self” (Hansen, 1997). As an embedded part of the whole person, the organizational role then benefits from the other “parts” of the person, includes the skills and abilities developed in other important roles. Additionally, both organizational and entrepreneurial roles may be intertwined in the view of work as a calling in that there is little separation of these role identities and therefore knowledge and abilities are free to spillover from role to role. For example,
university professors often see their work as a calling such that their roles as scientific research and classroom educator enrich one another as they impart of their research findings in the classroom and generate research ideas from classroom experiences (Prince, Felder, & Brent, 2007). These same professors may also engage in consulting activities outside of the university role which have the same enriching and mutual spillover effects (Thursby, Fuller, & Thursby, 2009).

A second reason viewing the organizational role as calling is likely to result in greater spillover from entrepreneurial to organizational role is that it results in greater development of the capacity to transfer skills. Hall and Chandler (2004) state that seeing a work role as a calling enhances “metacompetencies” which facilitate “the acquisition of other, more specific competencies or skills” (p. 9). Metacompetencies, they argue, support individuals in continuously improving and learning through career experiences and aid in the development of self-confidence and self-awareness which are necessary ingredients for individuals to reach into their past experiences and identify the skills and abilities needed to enhance performance in a particular role (Hall, 2002). When a person views the organizational role as calling they may be more equipped to recognize that entrepreneurial learning has indeed taken place in the entrepreneurial role and that these new skills are applicable to innovating in the workplace.

The third reason a “calling” view might influence the proposed enrichment relationship is that it often leads to greater proactivity in expanding and innovating one’s work role. Wrzesniewski and Dutton (2001) propose that the process of being motivated to engaged in proactively changing one’s role which leads to enhanced role meaning and identity is circular in nature; that is, as employees find greater meaning in their working roles they are more motivated to continue crafting or altering their roles. One way in which employees might expand and
change the boundaries of the tasks associated with their organizational roles is through exploratory and exploitative innovation (Sluss, van Dick, & Thompson, 2010). While the specific role crafting model put forth by Wrzesniewski and Dutton is distinct from role innovation theory, such that crafting involves the changing more than just role tasks to include cognitive and relational boundaries as well, the authors acknowledge the potential inclusion of innovation in crafting processes. Both crafting and innovation refer to activity by an employee to “create a better fit” between an employee and the meaning toward the job and employee holds (Wrzesniewski and Dutton, 2001, p. 188). Thus, I propose that individuals ascribing significant meaning to their organizational roles, such as those identifying the role as a calling, are more likely to see the usefulness of their learned entrepreneurial knowledge through part-time entrepreneurship and more willing and motivated to employ these skills through innovative behaviors in organizational roles as they are motivated to continuously alter organizational task boundaries.

**Proposition 6:** Employee role orientation moderates the association between engagement in part-time entrepreneurial roles and exploratory innovative behavior organizational-work roles, such that the association will be more positive when organizational-work roles are viewed as callings than when viewed as careers or jobs.

**Proposition 7:** Employee role orientation moderates the association between engagement in part-time entrepreneurial roles and exploitative innovative behavior organizational-work roles, such that the association will be more positive when organizational-work roles are viewed as careers than when viewed as callings or jobs.
**Organizational Climate for Innovation.** According to Lewin (1951), conceptualizations of individual behaviors are incomplete if they consider only the individual level influences on behaviors without considering the context in which the behavioral relationships take place. Thus, in addition to individual level factors which influence the potential spillover relationship from entrepreneurial roles to organizational behaviors, are influences from the organization. One potential organizational factor of influence is climate. Organizational climate refers to the shared perceptions of organizational actors concerning the types of behaviors that are encouraged through rewards and other forms of organizational support such as policies, practices, and organizational norms (Schneider, 1990). Important to understanding climate is that there is some meaning attached to the various practices and norms of the organization through individual perceptions (Schneider, Erhart, Macey, 2013). Climate is an important and established organizational feature which impacts employee behavior. For example, an organizational climate emphasizing service has been linked to greater customer service scores for employees and organizations (Schneider, White, & Paul, 1998), and a climate for safety has been demonstrated to result in fewer workplace accidents (Naveh & Stern, 2005).

Although closely related, organizational climate is different than organizational culture. While climate refers to what’s ‘inside’ people’s heads, or shared perceptions of values, culture refers to what’s “between the heads of a group of people” regarding the enduring importance of symbols, rituals, and myths of the organization (Alveson, 2012, p. 4). Denison (1996) attempts a further divide between culture and climate in arguing that climate is more “surface level” in terms of observable practices and procedures while culture is more embedded in an organizations history and very existence. He states further that “climate refers to a situation and its link to thoughts feelings, and behaviors of organizational members” while “culture, in contrast, refers to
an evolved context (within which a situation may be embedded)” (p. 644). Empirically, culture is more appropriately assessed qualitatively and climate quantitatively; however, more recent studies apply quantitative approaches for measuring culture (Schneider, et al, 2012). In terms of methodological approach, Glick (1985) demanded that climate is no different than individual attitudinal research unless measurement instruments addressed organizational outcomes, organizational level functioning, and aggregated to organizational or group levels. Thus, most studies rely on aggregated employee surveys and employ interrater agreement procedures or through supervisor and management assessment of the organizational climate (Schneider, et al, 2012).

Critical to organizational climate research is the incorporation of a climate referent (Schneider & Rechers, 1983). Without a specific referent, general organizational climate measures may be quite meaningless in terms of their predictions to a specific criterion as all dimensions of generalized climate may not be relevant to the behavior. For example, Abbey & Dickson (1983) examined the relationships between general organizational climate and innovation and found little support for the effects of the full spectrum of climate dimensions. While there may be several types of organizational climate types which influence the propose spillover relationship, a climate for innovation seems most appropriate as the behavioral construct of interest is innovative behavior.

An organizational climate for innovation is characterized as the shared employee perceptions regarding organizational support and encouragement for innovation (West & Richter, 2008; Scott & Bruce, 1994). At the team level, scholars suggest that innovative climate is composed of four important team level factors associated with innovation (Anderson & West, 1998). The dimensions include a team’s vision or higher order goals for performance,
participative safety such that team members feel safe in voicing ideas, an orientation toward accomplishing tasks, and support for innovation which characterizes more traditional ideas regarding climate such as rewards, policies, and practices (Somech & Drach-Zahav, 2013). Based on two factor construct of climate for innovation, Scott & Bruce (1994) found that organizational support for innovation and supply of resources for innovation predicted individual innovative behavior at work. Lee and colleagues (2011) found support for organizational innovative climate affecting individual entrepreneurial intentions through employee satisfaction.

That an innovative organizational climate can influence the positive spillover from an entrepreneurial role to an organizational role is based on expectancy theory. According to Vroom (1964), an individual is motivated to behave when the result or reward of the behavior is of value and the individual believes the effort involved in the behavior will eventually lead to achieving the reward. In this case, part-time entrepreneurs are more likely to focus the knowledge and skills learned through entrepreneurial processes on innovating in primary organizational roles if they believe these newly acquired skills will help them achieve performance (Greenhaus & Powell, 2006). An innovative climate works to establish the innovative behavioral norms within the organization thereby conveying a shared message to employees that innovation is expected and rewarded. A climate supportive of innovation may be characterized by recognition of innovative behavior by leaders of the organization (Gumusluoglu & Ilsev, 2009) which encourages part-timers to draw on their entrepreneurial knowledge and identify opportunities to explore and exploit in their work roles. An innovative climate in the organization can also help part-time entrepreneurs recognize what information learned through entrepreneurial experiences is relevant for innovation in the organizational work role and feel confident in their abilities to engage in this important behavior (Hirst, Van Knippenberg, Zhou, Zhu, Tsai, in press).
In addition to the rewards argument, innovative behavior can also provide a form of safety and freedom for employees to innovate in their respective roles. Innovation usually involves challenging the status quo in an organization and is associated with “disruption” and “discontinuity” (Carayannis, Gonzalez, & Wetter, 2003). As such, the decision to transfer innovative skills to the primary organizational role is made under situations of risk and uncertainty. However, a context in which individuals feel safe in their decisions to innovate can alleviate this risk. Choi (2007) states that “employees may need to feel protected or even encouraged by the entire organization when they take risks in suggesting improved work procedures and policies that may create tension with others (p. 472). The encouragement from organizational leaders and coworker examples to enact innovative behaviors at work can help to build the safety and trust necessary for role innovation. Policies and procedures can also convey important messages to employees that innovative behavior is welcomed and expected (Bowen & Ostroff, 2004). Indeed, Sung and Choi (2014) found that an innovative climate strengthened the relationship between the learning practices of an organization and the innovative behaviors of employees. Based on this evidence, it is expected that the relationship between learning in the entrepreneurial context and the innovative behavior in organizations would be moderated by an organization’s innovative climate.

**Proposition 8:** Organizational innovative climate moderates the association between engagement part-time entrepreneurial roles and exploratory innovative behavior in organizational-work roles, such that the association will be more positive under conditions of high (rather than low) innovative climate.
Proposition 9: Organizational innovative climate moderates the association between engagement in part-time entrepreneurial roles and exploitative innovative behavior in organizational-work roles, such that the association will be more positive under conditions of high (rather than low) innovative climate.

DISCUSSION

My goal with this paper was to shed light on a potentially unique and important context of entrepreneurship by challenging some of the prevailing assumptions associated with starting ventures and entering entrepreneurship. That is, few scholars have even acknowledged the fact that many entrepreneurs are not engaged in venture creation in a full-time capacity. Further, those that do study this majority of people starting businesses while maintaining their full-time employment assume that this state of career hybridity is temporary and short-lived such that part-time entrepreneurs eventually and quickly move into full-time self-employment (Raffiee & Feng, 2014) and have not considered the likely effects of engaging in these roles simultaneously. Here, I have argued that the time spent in hybridity between part-time entrepreneurship and full-time organizational employment is an important context to study for both entrepreneurship and organizational behavior researchers. In doing so, I have argued that part-time entrepreneurs develop important entrepreneurial knowledge and skills through their venturing experiences which may be transferred or spilled-over to their roles as organizational employees in the form of innovative behavior. Additionally, I have conceptualized important individual and organizational influences on this role spillover relationship such as individual goal orientation, role centrality in the form of career orientation, and organizational climate. I believe this conceptualization makes several important contributions to a variety of literature streams including research on the
interplay between organizations and entrepreneurship, general entrepreneurship, entrepreneurial learning, role theory, and employee innovation.

In expounding on the contributions this paper makes to the related fields of inquiry, I outline a comprehensive program of research for studying part-time entrepreneurial roles and their relationships with other roles in the subsequent subsections. Certainly, the first step in this research program is empirical testing of the theoretical propositions. An important contribution of this process will include development of a valid and reliable measure of part-time entrepreneurial engagement. This may prove to be a significant undertaking considering the definitional issues and recent challenges associated with entrepreneurship (Alvarez & Barney, 2013; Gartner, 1990; Rehn et al, 2013; Shane & Venkataraman, 2000; Shane, 2012). For example, one potential challenging question that must be answered is “who” is actually a part-time entrepreneur? Are individuals consulting outside of full-time work considered part-timers? What about the employee moonlighting as a real estate agent on the weekends? Previous studies of part-time entrepreneurship have classified part-timers and those in the process of starting and managing a business while maintaining employment elsewhere for a certain number of hours (Petrova, 2012; Raffiee & Feng, 2014) and have been carried out through large scale phone and interview surveys. Thus, these samples have the benefit of ensuring that a person is undertaking entrepreneurship but cannot guarantee that an individual is actually an employee and therefore would be difficult to assess their innovative work behavior and role centrality.

Perhaps the most effective means of assessing part-time entrepreneurship is by asking people working in large organizations with a variety of departments and units (to ensure the type of job role does not bias results) the extent to which they believe they are actually engaged in such behaviors outside of their primary organizational roles. Doing so allows individuals to
determine the extent of their entrepreneurial behavior in relation to definitions of entrepreneurship. Another challenge in testing the proposed model is that it requires the survey of individuals working in organizational roles to assess both the extent to which they engage in entrepreneurship and their innovative behavior at work. As such, survey items must be worded carefully to ensure people are willing to respond to a workplace survey which asks them to assess their activities outside of the primary organizational role. Surveying individuals within an organization also allows for more accurate assessment of innovative work behavior as an important outcome of part-time entrepreneurial engagement. Measuring innovative work behavior of those engaged in part-time entrepreneurship might involve both self and supervisor assessments as is common with behavioral outcomes in the workplace (De Jong & Den Hartog, 2010). Some scholars have suggested that self-reported innovative behavior may provide a more realistic perspective of innovation at work because employees have access to more information regarding their own innovative efforts than supervisors, innovative behavior may go completely unnoticed by supervisor and coworkers, and innovative behavior is “susceptible to idiosyncratic interpretations” across different raters (Janssen, 2000, p. 292).

Organizations and Entrepreneurship

To this point, the vast body of research studies explaining the relationship between organizations and entrepreneurship outside of the organizations has focused squarely on how elements of the organization influence individuals to pursue new venture creation and how individuals draw on important experiences in their organizational working lives to enrich their lives as entrepreneurs (Sørenson & Fassiotto, 2011). This paper proposes another side to this story in suggesting that people running side businesses outside of their primary organizations have a great deal to offer the organization especially in terms of innovativeness. This individual,
role centric proposition opens a host of potential research opportunities in this field of research. It is very likely that individuals engaged in part-time entrepreneurship offer additional, unique contributions to their organizations. For example, Cope (2003) suggests entrepreneurs learn valuable management skills through venture ownership which might translate into leadership capabilities in the primary, organizational role. Entrepreneurs also develop and refine their interpersonal and networking abilities (Taylor & Thorpe, 2004) which may result in increased social capital in the organizational role through improved supervisor, team, and coworker exchanges (Settoon, Bennett, & Liden, 1996; Sherony & Green, 2002) or access to other resources through expanded social networks. Future research should consider the full range of additional ways in which part-time entrepreneurial roles enrich full-time employment roles.

While in this paper I have focused exclusively on the positive spillover between entrepreneurial and organizational roles, there is certainly a need to examine the potential for negative spillover effects or conflict between part-time entrepreneurs and their primary organizations. Interrole conflict is generally a result of pressure arising from two important role domains which are “mutually incompatible in some respect” (Greenhaus & Beutell, 1985, p. 77). Thus, it is expected that the demands of either (or both) entrepreneurial or organizational roles create a conflict with the other. For example, successful entrepreneurship, especially the nascent stage, may require a great deal of time and mental energy (Baron, 2007) which may result in less time and less focus in one’s full-time working role and decreased performance. Thus, future research should consider the potentially negative impacts to the organization when individuals venture part-time. In addition to negatively effecting one’s performance in the primary organizational role, engaging in part-time entrepreneurship might affect one’s organizational identification, commitment, withdrawal, turnover intentions, and citizenship behaviors. Each of
these has been linked to some type of role conflict (Allen, Herst, Bruck, & Sutton, 2000; Boyar, Maertz Jr, Pearson, & Keough, 2003; Kreiner & Ashforth, 2004) and therefore might be applicable to entrepreneurial-organizational role conflict as well.

Future research should also consider additional moderators of both positive and negative spillover relationships from part-time entrepreneurial to full-time organizational roles. In this paper, I focused only on an organizations climate for innovation as a potential organizational contingency to the proposed spillover relationship. However, other organizational factors might also influence whether these roles conflict or enrich one another. For example, it may be true that some organizations by their very structure are more or less conducive to innovative spillover (Pierce & Delbecq, 1977). For example, organizations with more organic structural properties may provide the flexibility for part-timers to transfer their learned skills to the workplace while more mechanistic structures restrict employees from innovating in their work roles. Additionally, spillover may be constrained or enhanced by other individual characteristics beyond goal orientation and role centrality. Several reviews and meta-analyses have been conducted on individual attributes affecting innovation as well as role conflict and enrichment (e.g. Byron, 2005; Hammond, Neff, Farr, Schwall, & Zhao, 2011; Jackson & Schuler, 1985) suggesting that individual level attributes play an important role in determining positive or negative spillover.

**Entrepreneurship and Part-Time Entrepreneurship Literature**

As mentioned previously, this paper contributes to the broader body of entrepreneurship literature by exploring a relatively unexplored form of entrepreneurship; part-time entrepreneurship. In doing so, I participate in recent calls to “move away from” dominant assumptions of entrepreneurs as only highly disruptive, heroic capitalists of Silicon Valley fame (Rehn, Brannback, Carsrud, & Lindahl, 2013, p. 545) to more realistic depictions of
entrepreneurs as employees who identify opportunities to start businesses outside of their primary jobs yet remain employed (Reynolds, Carter, Gartner, Greene, & Cox, 2002). In this way, this paper continues challenging the “who” of entrepreneurship and opens the door for future work to determine what unique challenges part-time entrepreneurs face in the entrepreneurial process versus those in a full-time capacity. For example, future research might address how the process of starting a new venture is constrained by also maintaining full-time wage employment. Additionally, scholars might explore how risk perceptions differ between part-time and full-time entrepreneurs as others have suggested that part-time entrepreneurs are not under the same capital resources constraints as full-time owners (Petrova, 2012).

Perhaps the most important contributions can be made to theoretically and empirically identifying why so many entrepreneurs chose part-time entrepreneurship and how long they typically remain in part-time entrepreneurship. The length of time spent in a state of hybridity between part-time entrepreneurship and full-time employment has not been addressed and certainly is significant to the model proposed in this paper. It would be interesting to determine the differential effects part-time entrepreneurs have on their primary organizations depending on if they remain “part-time” for only a brief period or if they remain in hybridity for an extended period of time such as years or even an entire career. The motivation to fully transition to full-time entrepreneurship has not been adequately addressed (Block & Landgraf, 2014) and is likely an additional boundary condition of the entrepreneurial-organizational role spillover relationship. The reasons for entering entrepreneurship on a part-time basis are also likely to affect the spillover relationship. For example, many of the ideas for starting new ventures originate within the organization in which an entrepreneur works and is sometimes even sponsored by the organization in order to reap some of the potential monetary benefits of the innovation.
(Etzkowitz, 2002). Hence, ideas sponsored by organizations, and perhaps even those that simply originate from information available only to organizational employees (Burton et al, 2002) may affect the extent to which part-time entrepreneurs are willing to transfer the skills and knowledge they learn through the venture creation process.

**Entrepreneurial Learning**

This paper also makes important contributions to the entrepreneurial learning theory and the associated body of learning research. First, I proposed that the learning which takes place through entrepreneurial experience can be focused to enrich and improve performance in roles outside of the venture, specifically the primary organizational role as employee. This breaks from most entrepreneurial learning studies which suggest learning is focused on the role in the new venture (Deakins & Freel, 1998) While others have certainly suggested that entrepreneurial learning can affect other aspects of an individual’s life (Cope, 2003), few studies have specifically explored or proposed these effects. The proposition made here that part-time entrepreneurial learning can enhance one’s innovative behavioral performance in the primary organizational role speaks to new opportunities in entrepreneurial learning to explore other role spillover effects. For example, future research might consider the unique effects entrepreneurial experience has on performance in student, family, and community roles.

Second, this paper explores a very specific result of entrepreneurial learning. That is, I propose that through entrepreneurial experiences an individual gains or enhances the ability to engage in exploratory and exploitative innovation. In reviewing the entrepreneurial learning literature, it was surprising how few studies of individual entrepreneurial learning posit a specific learning outcome in the form of a skill or knowledge and instead put forth only general entrepreneurial knowledge (e.g. Cope & Watts, 2000; Politis, 2005). Future research then might
consider, in greater depth, the specifics of entrepreneurial knowledge and skills such as networking and communication skills, branding and marketing skills, and money management skills. As scholars focus more specifically on the skills and knowledge enhancements taking place through entrepreneurial learning experiences, they can theoretically and empirically consider how these learned capabilities are transferred to other important roles in an entrepreneur’s life.

Third, this paper explores entrepreneurial learning in a unique and relatively under-explored context; part-time ventures. Nearly every study of part-time or hybrid entrepreneurs suggest the importance of learning (e.g. Raffiee & Feng, 2014). However, too few studies have actually assessed learning in part-time entrepreneurial contexts. As a part-time entrepreneur, there is potential for entrepreneurial learning and learning in the primary organizational role to interact. Future research might consider the synergies, overlap, and potential from this interesting simultaneous learning experience.

**Organizational Behavioral Roles and Innovation**

The proposal made in this paper also contributes to the greater body of organizational behavior research focusing on how the many roles in a person’s life affect each other and how these roles influence behavior at work (Biddle, 1979). The contribution of this paper lies in the introduction of a new role which has not been previously considered in relation to the employee role: an entrepreneurial role outside of the organizational role. Consideration of an entrepreneurial role and its relationship to the organizational role helps push role theory beyond the oft studied work-family and inter-organizational role issues (e.g. Frone, Yardley, & Markel, 1997; House & Rizzo, 1972) to new forms of role enrichment and conflict. My hope is that this paper inspires researcher to not only consider the part-time entrepreneurial role and its related
impact on the individual but to reflect on other unique forms of role spillover which have yet to be uncovered and explored. For example, we might ask what effect one’s engagement in a community, religious, or political and activist group role has on the employee role. A recent survey suggests that individuals engaged in community volunteering roles outside of their organizations developed new skills and were more effective in their work tasks (Robert Half News Release, 2015). Exploring a breadth of life roles and their interactions with the organizational employee role will certainly enhance our understanding of employee behavior.

Additional research might also consider other paths of spillover from part-time entrepreneurship to organizational behavior beyond the instrumental path considered here. As was mentioned previously, Greenhaus & Powell (2006) conceptualize an affective spillover path in which positive affect developed in one role facilitates improved performance in another role. Because the role of emotion is becoming more important in entrepreneurship research (Shepherd, 2015) it is important to consider how the positive emotions generated in an entrepreneurial role might influence positive feelings and improved performance in the organizational role. Entrepreneurial motivation literature suggests that many individuals undertake new venture creation to satisfy a desire to challenge one’s self and to gain a greater sense of personal accomplishment (Carter, Gartner, Shaver, & Gatewood, 2003). If people engaged in part-time entrepreneurship feel this same sense of satisfaction and accomplishment it may very well translate into more positive feelings about their role in their respective organizations which might enhance job performance.

In this paper, the important form of job performance considered is individual innovation. Significant research exists highlighting the importance of innovation at individual, group, and organizational levels (King & Anderson, 2002) and therefore this study participates in increasing
our understanding of drivers of individual level innovation in the workplace. While entrepreneurial learning through part-time venturing experience is an uncommon source of improving one’s innovative capacities, it may be a common phenomenon as many people working full-time jobs are also engaged in part-time entrepreneurship (Burke et al, 2008). Identification of an additional antecedent to employee innovation also contributes to recent pushes in strategic management to uncover the microfoundations of organizational level phenomena such as innovation (Felin, Foss, & Ployhart, 2015).

**Practical Implications**

Although the proposed model requires empirical testing, I speculate as to its usefulness for practicing managers. Most businesses are careful to ensure employee activity outside of work does not interfere with performance at work. Thus, organizations generally have policies in place which preclude or discourage people from engaging in other types of employment opportunities outside of the primary organization. However, the argument presented here opposes this view and speaks to encouragement of entrepreneurial behaviors outside of the organization to generate greater entrepreneurial behavior inside the organization. Organizational leaders certainly must be weary of conflicts of interest and conflicts with work time and energy; however, supporting the entrepreneurial desires and behaviors of employees when not at work might pay unique dividends to the organization in terms of increased innovativeness in work tasks, improved self-efficacy and confidence in carrying out challenging work assignments, and greater overall satisfaction with work roles. I recommend leaders promote, encourage, and perhaps even sponsor entrepreneurial venturing outside of work in hopes that employees will learn entrepreneurial skills and knowledge and reciprocate through increased innovative behavior at work.
CONCLUSION

Given the fact that most entrepreneurs undertake new venture creation and management while maintaining full-time employment, we need a clearer understanding of the relationship between entrepreneurs and their organizational role during the periods of career hybridity. In this paper, I have conceptually explored one possible effect of engaging in part-time entrepreneurship on the primary organization; that part-timers are likely to draw on their learned entrepreneurial knowledge and skills through enactment of exploratory and exploitative innovative behaviors in employee roles. This proposition addresses a unique and understudied side of the organization-entrepreneurship relationship and opens the door for greater role-centric theorizing regarding what most entrepreneurs face during venture processes.
### Essay One Table 1. Hybrid Entrepreneurship Studies

<table>
<thead>
<tr>
<th>Author(s) and Year of Publication</th>
<th>Conceptual Definition</th>
<th>Sample/Measurement Type</th>
<th>Operationalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wennberg, Folta, &amp; Delmar (2006)</td>
<td>Part-time entry</td>
<td>Secondary; Swedish tax documents</td>
<td>Individuals with less than half of their income from self-employment</td>
</tr>
<tr>
<td>Folta, Delmar, &amp; Wennberg (2010)</td>
<td>Individuals who engage in self-employment activity while simultaneously holding wage-employment</td>
<td>Secondary; Swedish labor market databases</td>
<td>Individuals classified as employed, self-employed, and employed in the same firm as they were in the prior year</td>
</tr>
<tr>
<td>Petrova (2010)</td>
<td>Not provided</td>
<td>Primary; Panel Study of Entrepreneurial Dynamics</td>
<td>Individuals specifying 34 hrs or less per week spent in their business ventures</td>
</tr>
<tr>
<td>Petrova (2012)</td>
<td>People who work at a regular wage job some of the time and work at their own businesses the rest of the time (pg. 474)</td>
<td>Primary; Panel Study of Entrepreneurial Dynamics</td>
<td>Individuals specifying 34 hrs or less per week spent in their business ventures</td>
</tr>
<tr>
<td>Burmeister-Lamp, Levesque, &amp; Schade (2012)</td>
<td>Those who maintain a wage job while starting a new enterprise</td>
<td>Experimental</td>
<td>Not Operationalized</td>
</tr>
<tr>
<td>Raffée &amp; Feng (2014)</td>
<td>The process of initiating a business while simultaneously remaining employed for wages</td>
<td>Secondary; National Longitudinal Survey of Youth, 1979 cohort</td>
<td>Respondents held paid and self-employment jobs simultaneously at any given time</td>
</tr>
<tr>
<td>Block &amp; Landgraf (2014)</td>
<td>Not provided</td>
<td>Primary; Survey</td>
<td>Not provided</td>
</tr>
<tr>
<td>Viljamma &amp; Varamaki (2015)</td>
<td>Active entrepreneurs who do not support themselves primarily by their enterprises.</td>
<td>Primary; Survey</td>
<td>Self-identified as hybrid entrepreneurs</td>
</tr>
<tr>
<td>Thorgren, Siren, Nordstrom, Wincent (2016)</td>
<td>Entrepreneurial activities initiated parallel to wage employment</td>
<td>Primary; Survey</td>
<td>Engaged in wage employment and engagement in an entrepreneurial venture</td>
</tr>
<tr>
<td>Schulz, Urib, &amp; Procher (2016)</td>
<td>Simultaneous engagement in</td>
<td>Secondary; Mexican National Survey for</td>
<td>Individuals reporting work as paid employee and self-employed</td>
</tr>
</tbody>
</table>
Essay One Figure 1. Conceptual Model of Part-time Entrepreneurial to Organizational Role Spillover
**Essay Two:**

**Learning Off the Job: The Innovative Behaviors of Hybrid Entrepreneurs at Work**

A growing body of scholarly research highlights the importance of understanding the specific learning that takes place through entrepreneurial processes (Wang & Chugh, 2014). Along with entrepreneurial education research (Kuratko, 2005), entrepreneurial learning theory illuminates what, why, and how individuals learn to act and work in entrepreneurial ways (Parker 2006; Rae, 2000). Entrepreneurial learning is important not only to an individual’s success as an entrepreneur (Cope, 2005) but also within existing organizations. Indeed, significant research is dedicated to understanding how firms can encourage and cultivate the innovative, entrepreneurial behaviors of employees to contribute to competitive advantage (Hitt, Ireland, Camp, & Sexton, 2001). While scholars have separately studied learning which takes place through individual ventures and learning within existing firms, little research has considered the potential overlap between these two learning contexts; the exception being learning spillover through company incubators and firm spinoffs (Honig, 2001; Sanz-Velasco, & Saemundsson, 2008). However, one overlooked entrepreneurial context which potentially offers interesting insights into how individual entrepreneurial learning can have a significant effect on entrepreneurship within an organization is hybrid or part-time entrepreneurship.

Relatively unexplored in the entrepreneurial and management literatures, hybrid/part-time entrepreneurship is characterized by individuals pursuing entrepreneurial endeavors outside of the firm while maintaining primary, wage-employment (Folta, Delmar, & Wennberg, 2010).
The lack of scholarly attention to part-timers is indeed surprising given that according to some estimates, 80% of entrepreneurs also hold regular paid-employment jobs (Global Entrepreneurship Monitor, 2012). Although scholars have suggested that part-time entrepreneurship offers learning opportunities (Folta, et al. 2010), this learning is generally focused on a new venture or a future entrepreneurial career rather than overarching entrepreneurial capabilities. However, individuals engaged in managing part-time ventures are likely to be acquiring or at least refining their innovative and creative skillsets as they “learn by doing” activities requiring a breadth of entrepreneurial skills (Cope & Watts, 2000). While this entrepreneurial skillset will no doubt be put to good use in the entrepreneurial venture, scholars have yet to theorize their effects to the organization in which the part-time entrepreneur maintains employment as most studies assume part-time entrepreneurship is simply a step toward, or transitional stage before, full-time entrepreneurial entry. However, no study has definitively determined that these part-timers always transition, or how quickly they transition, into full-time entrepreneurship suggesting there may be significant amounts of time spent in states of “hybridity” in which the primary organization may be affected. The purpose of this paper is to empirically determine the extent to which engaging in hybrid/part-time entrepreneurship affects individual innovative behavior in primary, organizational roles.

According to role accumulation theory, engaging in multiple roles may produce positive experiences for an individual (Sieber, 1974). Scholars continue to draw on the notion that positive experiences in one role can result in positive outcomes in another role through a transferring or expansion process (Marks, 1977). For example, significant research exists to explain the potential enrichment between work and family roles (Greenhaus & Powell, 2006). Thus, I posit the entrepreneurial learning which takes place through part-time venture creation
and business management may be transferred to one’s primary, organizational working role in the form of entrepreneurial behaviors associated with work tasks. An important form of entrepreneurial behavior is innovation and learning scholarship suggests that an important outcome of entrepreneurial learning is the ability to engage in both exploratory and exploitative innovation. Part-time entrepreneurs may be particularly adept to innovating in their primary work role tasks and processes.

Entrepreneurial learning scholarship also suggests that the learning process itself and the application of learned knowledge and skills is influenced by differences in individual motivations and other contextual factors (Politis, 2005). Critical then, to the transformation of entrepreneurial experience to innovative behavior in the workplace for part-timers is a desire to engage in learning. An individual’s goal orientation is consistently demonstrated to influence learning processes and the application of learned behavior (Chadwick & Raver, 2015). Additionally, the importance or value individuals place on specific work roles, often in the form of career orientations, can determine the degree of positive or negative spillover between roles (Carlson & Kacmar, 2000; Carr, Boyar, & Gregory, 2008). Beyond the effects of individual differences, behavioral research suggests that social factors such as the work-group climate associated with a referent behavior has a significant effect on enactment of the behavior by employees (Schneider, Ehrhart, & Macey, 2013; Scott & Bruce, 1994). Accordingly, I examine the moderating effects of individual goal orientations, views of primary work roles, and work-unit climate for innovation on the relationships between engaging in part-time entrepreneurship and innovative behavior at work.

This research makes several important contributions to both entrepreneurship and organizational behavior research. In terms of the broader field of entrepreneurship, this study
makes carries important implications regarding how scholars view entrepreneurs. Currently, participation in entrepreneurship and entrepreneurial careers is viewed dichotomously: either creating/managing businesses full-time or not at all (Brenner, Pringle, & Greenhaus, 1991; Douglas & Shepherd, 2002). However, this research builds on the few existing studies exploring a form of entrepreneurship outside the current dichotomy; part-time/hybrid entrepreneurship. These entrepreneurs make up a great deal of the self-employed population and their study potentially has much to add to our current understanding of entrepreneurial processes and the contextualization of entrepreneurship (Zahra, Wright, & Abdelgawad, 2014). By exploring the potential innovative learning effects of part-time entrepreneurs, I contribute to the entrepreneurial learning literature through identification of an important learning context (Wang & Chugh, 2014). To this point, scholars have merely hinted at the learning effects of part-time entrepreneurship; however, I posit that these effects may be directed not only toward the entrepreneurial venture but to the organization in which the individual maintains primary employment. Thus, this study also contributes to the internal entrepreneurship (Jones & Butler, 1992) and organizational behavior literature (Scott & Bruce, 1994) by exploring a potential driver to entrepreneurial behaviors in the workplace.

I proceed with a review of the part-time or hybrid entrepreneur and entrepreneurial learning literatures. I then propose a conceptual model and proceed to explain the relationship between engaging in part-time entrepreneurship and the innovative behavioral spillover effect to the primary organization based on role accumulation and enrichment concepts. After proposing a methodology for validating the proposed model, I conclude with a discussion of the potential theoretical and practical implications of my propositions.
THEORETICAL BACKGROUND AND HYPOTHESES

Although as a field of study entrepreneurship has advanced significantly, disagreement remains concerning what constitutes entrepreneurship and an entrepreneurial career (Shane, 2000). Because in this paper I put forth arguments for spillover effects between two dimensions of employment, I take an approach similar to other scholars (e.g., Douglas & Shepherd, 2002) in defining entrepreneurship as an all-encompassing term which describes all forms of self-employment behavior and hence use both terms interchangeably throughout this paper. This broad definition allows for theorizing between the entrepreneur in self-employment and the individual employee in wage-employment.

Studies of both self-employment and paid-employment generally treat these types of careers as dichotomous. Indeed, entrepreneurs are mainly characterized as individuals who have made distinct, less traditional career choices to employ themselves rather than work for others (Dyer, 1994; Henderson & Robertson, 2000). While career literatures have examined the phenomenon of “portfolio” careers in which individuals act as freelance contractors (Fenwick, 2006), the concept does not account for individuals working in both paid-employment jobs and running self-employment businesses. However, labor economics scholars have theorized about optimal time “mixing” between self and paid-employment (Parker, 1997) leading to more recent acknowledgement that individuals do indeed participate in both self-employment and wage-employment career domains. For example, Burke et al. (2008) observed entrepreneurs over several years and found that individuals varied in their participation in full-time self-employment work. In attempting to describe a level of “die-hardenedness,” the authors discover that individuals tend to participate in both paid-employment and self-employment work simultaneously in greater numbers than those dedicated solely to entrepreneurship.
Building on these interesting findings, several scholars have hypothesized that the simultaneous participation in both paid and self-employment careers is a unique form of entrepreneurial entry deemed hybrid or part-time entrepreneurship (Folta, et al 2010, Petrova 2012, Raffiee & Feng, 2014). Though each study defines the concepts somewhat differently, part-time and hybrid entrepreneurship are generally interchangeable terms and are characterized by individuals working primary wage-employment jobs as well as secondary self-employment jobs. Folta et al (2010) put forth an incremental model of individual movement from wage work to entrepreneurship through part-time entrepreneurship and suggest this incremental entrepreneurial transition may be motivated by needs or desires for supplemental income, to explore entrepreneurship as a hobby, or to reduce switching costs from paid to self-employment careers. Their empirical findings suggest that transitions from hybridity to full-time self-employment is mostly determined by the financial gains from the part-time venture; the greater the gains the more likely transition will take place. Likewise, Petrova (2012) found that part-time entrepreneurs did not face the same financial constraints that individuals choosing full-time self-employment faced, highlighting the benefit of pursuing entrepreneurship through a part-time approach.

A recent study from Raffiee and Feng (2014) draws on a real options theory approach to explain hybrid entry to entrepreneurship and finds that the part-time, incremental approach is more likely pursued by individuals who are risk averse. Additionally, these researchers found that hybrid entrepreneurship results in greater venture survival than full-time self-employment. Further clarifying the transition from part-time entrepreneurship to full-time self-employment, Block and Landgraf (2014) explore how financial motivations for part-time entrepreneurship affect the transition decision. Their findings demonstrate that individuals pursuing part-time
entrepreneurship to supplement income are less likely to move into full-time entrepreneurial careers than those motivated by independence and self-realization. This study certainly highlights an important assumption made by previous studies of part-time entrepreneurship; that it is only a transitional entrepreneurial state to full-time self-employment. However, the study also suggests that some individuals may never actually transition to a full-time entrepreneurial career. Additionally, the amount of time spent in hybridity is rarely, if ever, considered and therefore it should not be assumed that all part-time entrepreneurs eventually move into full-time self-employment or that part-time entrepreneurship is only a short-term phenomenon.

**Entrepreneurial Learning**

While the concept of organizational learning has a rich history in organizational studies (Dodgson, 1993), only recently have scholars begun to examine the concept in an entrepreneurial context (Harrison & Leitch, 2005). Despite its relative “newness” as an approach for studying the developmental processes of entrepreneurial individuals, their ventures, and entrepreneurial organizations, entrepreneurial learning has been applied to a significant number of research studies (see Wang & Chugh, 2014 for review). While many studies explore learning from the venture or organizational level (e.g. Cope, 2003; Zhang, Macpherson, & Jones, 2006), the bulk of entrepreneurial learning research seeks to explain the individual learning processes of the entrepreneur or venture founder through various phases of business ownership. For example, several studies examine the learning that takes place in the start-up stage (Honig, 2001; Politis, 2008), the individual opportunity identification and exploitation phase (Corbett, 2005, 2007), and the failure and exit stage (Cope, 2011; Huovinen, & Tihula, 2008; Ucbasaran, et al., 2013).

From an individualistic perspective, entrepreneurial learning takes on a host of definitions. For example, Cope (2005) conceptualized entrepreneurial learning as the “learning
experienced by entrepreneurs during the creation and development of a small enterprise” (pg. 374). Politis (2005) describes entrepreneurial learning as a “continuous process that facilitates the development of necessary knowledge for being effective in starting up and managing new ventures” (pg. 401). Ravasi and Turati (2005) posit that entrepreneurial learning occurs “as entrepreneurs accumulate and organize knowledge and information” through business development (pg. 139). Other individualistic definitions of entrepreneurial learning include the process of accumulating and updating knowledge necessary for entrepreneurship (Minniti & Bygrave, 2001), the combining of previous knowledge and new experiences to recognize and exploit opportunities (Corbett, 2005), learning which takes place in entrepreneurial contexts (Harrison & Leitch, 2005), learning to work entrepreneurially (Rae, 2000), and learning experienced by entrepreneurs (Cope, 2003). While variance exists among these definitions, each speaks to the importance of what and how an individual learns through entrepreneurial processes.

Individual perspectives of entrepreneurial learning mainly take a cognitive approach. That is, individual entrepreneurial learning is examined as a mental mechanism in which knowledge structures are built and relied upon for entrepreneurial decision making (Ravasi & Turati, 2005). Perhaps the most dominant perspective used to explain the accumulation and integration of these entrepreneurial knowledge structures is experiential learning. Experiential learning is defined as the “process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 41). Thus, studies employing this theoretical perspective argue that individuals learn through various entrepreneurial experiences which affect their future entrepreneurial decision making, attitudes, and behaviors. While start-up venture experience is certainly the most commonly examined experience affecting the learning process (e.g. Politis, 2008; Up, Foo, & Song, 2013), other important experiences also have an effect such as
management experience (Brooder & Preisendorfer, 1998), industry experience (Cassar, 2014),
small business growth stages (Deakins & Freel, 1998), and critical events throughout
entrepreneurial processes (Cope & Watts, 2000).

While many of these studies suggest learning through entrepreneurial experiences affects
venture performance, survivability, coping with failure, and other important outcomes, the
primary product of entrepreneurial learning is an increase in entrepreneurial knowledge (Politis,
2005). According to Politis (2005), entrepreneurial knowledge consists mainly of the ability to
recognize and capitalize on opportunities to innovate and add value through entrepreneurial
ventures, and the development of important business skills and knowledge which can be
deployed in new ventures to assist in coping with newness. These skills and knowledge might
include a greater capacity to innovate and be creative (Politis, 2005; Ravasi & Turati, 2005) and
to work with others (networking) to find solutions (Taylor & Thorpe, 2004). Thus, perhaps a
broader definition of entrepreneurial knowledge might include any form of human and social
capital formed through entrepreneurial processes and experiences (Davidsson & Benson, 2003).
Entrepreneurial experiences are transformed into new entrepreneurial knowledge when
entrepreneurs leverage prior experiences when making decisions to act entrepreneurially in the
future either by making similar choices (exploitative) or by making new, different choices
(exploratory) (Politis, 2005).

**Part-time Entrepreneurial Learning Spillover**

Although not specifically mentioned as a medium through which entrepreneurial learning
takes place, part-time entrepreneurial ventures certainly allow for important entrepreneurial
experiences wherein individuals accumulate and develop entrepreneurial knowledge. For
example, Folta et al. (2010) suggests hybrid or part-time entrepreneurs learn a great deal about
themselves in terms of how they personally ‘fit’ in entrepreneurially contexts. Similarly, Raffie & Feng (2014) argue part-timers develop important skills and capabilities in a low-risk context which are necessary for full-time self-employment. Another study suggests individuals entering entrepreneurship know very little of their actual entrepreneurial abilities and therefore part-time entrepreneurship provides necessary experiences for learning how to act entrepreneurially (Petrova 2010). Thus, it appears that individuals engaged in part-time entrepreneurial ventures undergo similar learning experiences to those engaged in full-time ventures and therefore develop similar entrepreneurial knowledge.

While part-time entrepreneurs share similar experiences and learning as those undertaking entrepreneurship in a full-time capacity, the assumption throughout the part-time entrepreneurship literature is that learning and newly acquired knowledge will be devoted to the entrepreneurial venture and its surrounding environment such as building networks and developing capabilities for transition into full-time self-employment. However, one of the unique differences from full-time entrepreneurs is the tie part-time entrepreneurs have to a primary organization. Therefore, individuals engaged in part-time entrepreneurship have at least two outlets for exploiting and exploring entrepreneurial experience and newly acquired entrepreneurial knowledge: the venture and the primary organization. It is the latter context that I explore in this paper and suggest is potentially affected by the part-time entrepreneurial experience (See Figure 1).

“Insert Essay Two Figure 1 Here”

The knowledge learned through tasks undertaken in a part-time entrepreneurship context may be directed at the tasks in the primary organizations as an individual engages in both an entrepreneurial role and employee role. Scholars suggest that as an individual engages in
multiple roles, referred to as role accumulation (Sieber, 1974), both positive and negative outcomes are likely to occur. This concept is most salient in research examining the work-family interface in which an individual may experience both conflict and enrichment from engaging in family and work roles (Grzywacz & Marks, 2000). Enrichment literature suggests the accumulation of roles results in positive individual outcomes in three ways: First, satisfaction in each role has additive effects and results in physical and psychological well-being; Second, dual roles can buffer one another from the stress and anxiety inherent in each experience; Third, positive experiences and outcomes in one role can be transferred or reinvested in another role to produce positive results (Greenhaus & Powell, 2006). Included in the third medium through which positive spillover occurs between roles is an important dimension of work-family enrichment; the developmental element in which experiences in one role increase knowledge, skills, and abilities in the other role (Carlson, Kacmar, Wayne, & Grzywacz, 2006). In terms of proposing positive spillover from engaging in a part-time entrepreneurial role to the role of employee in the primary organization, I rely mainly on this third “experience transfer” mechanism and developmental dimension.

As previously mentioned, engaging in part-time entrepreneurship provides entrepreneurial experiences for individuals which increase their entrepreneurial knowledge. Learning to be more entrepreneurially minded may have important developmental benefits which may then spillover to the primary organization while the individual remains in a state of hybridity. Though this spillover may come in several different forms, I posit the primary positive effects to the primary organization are increased innovative behaviors. Innovation is defined as the intentional introduction and application within a role, group, or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly
benefit the individual, the group, organization or wider society (West & Farr, 1990 p. 9). Two types of innovative behavior have emerged from innovation and learning research: exploratory and exploitative innovation (Gupta, Smith, & Shalley, 2006; March, 1991; Wang & Chugh, 2014). Individual exploratory innovative behavior refers to new knowledge leading to the introduction of new ideas, solutions, services, or products associated with one’s work role, while exploitative innovation refers to reliance on existing knowledge leading incremental improvements or changes in work tasks, procedures, and processes (Audia & Goncalo, 2007; March, 1991). As previously mentioned, new business owners must consistently explore and exploit opportunities throughout the entrepreneurial process (Politis, 2005). Indeed, providing creative and novel ideas through business venturing is a mainstay of entrepreneurship (Ward, 2004). Likewise, scholars state that in order for entrepreneurs to achieve long-term success in their venture they must continuously find innovative solutions to satisfy customer needs (Ries, 2011). Entrepreneurs also develop important bricolage behaviors by creating useful, innovative solutions with limited resources (Baker & Nelson, 2005). Thus, individuals undertaking even a part-time form of entrepreneurship develop innovative knowledge, skills, and abilities through their venture experiences.

As individuals acquire innovative entrepreneurial knowledge through their part-time entrepreneurship experiences, this skillset is likely to spillover to their primary organizational work tasks. Part-timers will likely look for innovative solutions to the problems they face in their respective organizations as these organizations encourage and often incentivize innovative behavior (Parzefall, Seeck, & Leppänen, 2008). Indeed, as work has become more knowledge-based, organizational leaders are ever eager to capitalize on the innovativeness and creativity of their employees (De Jong & Den Hartog, 2007). Organizations are concerned with both
exploiting and exploring innovations just like individual entrepreneurs (Jansen, Van Den Bosch, & Volberda, 2006). Thus, part-time entrepreneurs possess the capabilities necessary to accomplish these organizational desires. These individuals may be more apt than other employees to demonstrate exploratory innovation in the workplace by looking for new ways to improve organizational processes, expand or go beyond management demands, and look for new technologies to improve how work is accomplished. Likewise, these individuals may be more capable of undertaking exploitative innovation by making existing processes more efficient and finding synergies among coworkers to accomplish work more effectively. Therefore, based on the entrepreneurial learning and role enrichment perspectives, I propose the following:

**Hypothesis 1:** The extent to which an individual engages in part-time entrepreneurship is positively associated with his/her exploratory innovative behavior in organizational, employee roles.

**Hypothesis 2:** The extent to which an individual engages in part-time entrepreneurship is positively associated with his/her exploitative innovative behavior in organizational, employee roles.

**Moderators of The Part-Time Entrepreneurship-Primary Job Spillover Relationship**

In the previous section I relied on logic from role accumulation and enrichment and entrepreneurial learning theories to argue that engagement in part-time entrepreneurship may potentially have a positive spillover effect to the primary or full-time organization. However, role theories also account for potential conflicts between accumulated roles (Greenhaus, & Beutell, 1985). Scholars have suggested a myriad of reasons why roles sometimes conflict rather than enrich such as role centrality (Carr, et al, 2008) and social support (Carlson, & Perrewé,
1999). As such, it is likely that the proposed positive spillover relationship between part-time entrepreneurial learning and innovative behavior in the organization is conditional. I focus on two important moderating individual characteristics and one organizational level factor which may influence the proposed relationship: (1) individual goal orientation which accounts for one’s desire to actually learn from part-time entrepreneurial experiences and translate them to other life roles (Brett & Vandewalle, 1999), (2) one’s primary work role orientation as a calling, career, or job (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997), and (3) the work-unit climate for innovation in which an employee roles resides.

**Goal Orientation.** For part-time entrepreneurs to build or add to their cognitive knowledge structures which can be focused on innovative behaviors inside the primary organization, an individual must learn from their part-time entrepreneurial experiences. However, learning through experience is not an automatic response or process and not all individuals are oriented toward, or motivated to learn (Colquitt & Simmering, 1998). Rather, individuals must have the desire or goal to transform and integrate experience into new and existing knowledge structures. Scholars suggest different work contexts often interact with different individual learning styles to impact knowledge learned from certain experiences (Armstrong & Mahmud, 2008). For example, Baum, Bird, and Singh (2011) find that goal orientation interacts with different types of experiences to produce practical entrepreneurial intelligence or knowledge. Thus, development of entrepreneurial knowledge through part-time entrepreneurship experience and then enacted through innovativeness in the workplace may be conditioned and magnified by an individual’s propensity or attitude toward learning. Three goal orientations have been developed to explain different attitudes towards learning through situations; learning, proving, and avoiding.
Learning orientation is defined as the propensity or internal drive of an individual to seek out and develop new knowledge (Dweck, 1986; VandeWalle, Brown, Cron, & Slocum Jr, 1999). Research suggests that learning orientation, a dispositional personality characteristic, is an important medium for developing new skills and knowledge (Brett & VandeWalle, 1999). Thus, individuals with a learning orientation actively pursue challenging experiences which provide opportunities to learn (Ames & Archer, 1988) such as entrepreneurship. Studies also demonstrate that because learning goal oriented people seek challenging opportunities to learn, even in the face of failure, they are associated more with exploratory learning rather than exploitative (Chadwick & Raver, 2015). As such, a high learning orientation is likely to strengthen a part-time entrepreneur’s motivation for learning through entrepreneurship and applying learned knowledge and skills in the employee role through exploratory innovation.

Hypothesis 3: Learning goal orientation moderates the association between engagement in part-time entrepreneurship and exploratory innovative behavior in organizational, employee roles, such that the association will be more positive for persons high in learning goal orientation.

Prove-performance goal orientation refers to desires to demonstrate competence and gain favorable judgements of others through successful performance in certain situations (VandeWalle et al, 1999). Prove-performers generally are less motivated to learn through challenging situations preferring instead to satisfice required tasks quickly and favorably in the eyes of those they seek to impress (VandeWalle, 2001). These individuals likely engage only in learning activities needed to outperform others (Harackiewicz, Barron, Carter, Lehto, & Elliot, 1997) and therefore, are more likely to draw on existing knowledge structures leading to innovative behaviors (Chadwick & Raver, 2015). Because exploratory innovation comes from
seeking new knowledge structures to produce riskier, large-scale innovation, prove-performance orientation is likely to influence entrepreneurs to engage in more incremental, small-scale innovative behaviors which demonstrate quick performance results.

*Hypothesis 4: Prove-performance goal orientation moderates the association between engagement in part-time entrepreneurship and exploitative innovative behavior in organizational, employee roles, such that the association will be more positive for persons high in prove-performance goal orientation.*

In contrast to learning and proving goal orientation, an avoiding orientation represents motivation to avoid negative performance perceptions (VandeWalle, 1997). Avoiders turn away from challenging, learning situations which invite the potential for failure and prefer situations with more predictable outcomes (Hirst, van Knippenberg, & Zhou, 2009). Both exploratory and exploitative learning and innovation represent opportunities for failure (Alexander & Van Knippenberg, 2014). Therefore, individuals with avoidance goal orientations are unlikely to engage in entrepreneurial learning and be less inclined to transfer any entrepreneurial knowledge to work roles in the form of innovation.

*Hypothesis 5: Avoid-performance goal orientation moderates the association between engagement part-time entrepreneurship and exploitative and exploratory innovative behavior in organizational, employee roles, such that the association will be negative for persons high in avoid-performance goal orientation.*

**Employee Role Orientation.** While part-time entrepreneurship offers a unique opportunity to learn and to gain entrepreneurial knowledge, the motivation driving decisions of where to focus newly acquired entrepreneurial skills may depend on how people view their roles with their employing organizations. Greenhaus and Powell (2006) state that the value attributed
to specific roles can influence the extent of effort applied in roles. Other scholars have demonstrated that the importance or centrality of roles has implications for the effects of role dynamics on work related outcomes (Carr et al, 2008). The importance or value of a role in a person’s life is, in part, determined by how the role is viewed in relation to the person’s identity (Turner, 1978). The degree to which an individual identifies more with certain roles than others then, may result in more time and effort exerted in roles deemed central to an individual (Carver & Sheirer, 1982; Schwartz, 1994).

How employees view their organizational roles may stem from how important these roles are to their individual identities. Role identity refers to the meaning people attribute to themselves within a specific role and is defined both by social structures surrounding the role and by the individual (Turner, 1978). Expression of a specific role identity is often measured in terms of the salience or importance placed on a given role by an individual. Often referred to as role centrality, individual’s place more value, emphasis, and priority on some roles more than others. The value an individual assigns to a role affects the cognitive processes associated with making decisions to act and behave in certain ways (Meglino & Ravlin, 1998). Indeed, one’s role identity is critical in driving attitudes and actions associated with the role (Charng, Piliavin, & Callero, 1988; Stryker, 1968). The degree to which an individual identifies more with certain roles than others then, may result in more time and effort exerted in roles deemed central to an individual’s self-concept (Carver & Sheirer, 1982; Schwartz, 1994).

Wrzesniewski et al., (1997) suggest people view their work roles in three distinct ways: as jobs, careers, and callings. People viewing their work as merely “jobs” are generally those interested in only the external or material benefits associated with the work. For these workers, a job is simply a means to an end and are unlikely to create a work-role identity in their
organization. Alternatively, people viewing their work as a career have a much deeper relationship with their work roles and link their identities with their respective job titles. Finally, individual’s viewing work as a calling develop a distinct and unique identity in their work roles. For these people, work is inseparable from everyday life and their work shapes their very self-concept in that individuals define themselves in terms of their occupation. Thus, for individual’s viewing work as a calling, work roles are extremely salient and therefore a great deal of cognitive energy and physical effort is exerted to produce successful role outcomes.

Part-time entrepreneurs who view their primary work roles as callings are likely to direct their entrepreneurial learning to improving their performance at work because of the salience of their work-role identities. Studies show the viewing work as a calling often results in more overlap and carryover from non-work roles (Kreiner, Hollensbe, & Sheep 2006) such that while people may be running side ventures, their primary focus is on successfully fulfilling work obligations. These part-timer’s may look for ways to innovate at work more than those viewing work as career or job because work roles are more central and important to them. Additionally, viewing the employee role as a calling can motivate an employee to expand role boundaries and look for ways to continue adding meaning and value (Wrzesniewski & Dutton, 2001). Consequently, part-time entrepreneurs viewing employee roles as callings are more likely to engage in exploratory innovation which has the capacity to enlarge work task boundaries. While those with a view of work as a calling are inclined toward exploratory innovation in order to achieve more subjective, intrinsic success, those viewing work as a career are motivated to perform at work in order to achieve more objective measures of career success such as financial or status levels (Heslin, 2005). Therefore, part-timer’s viewing employee roles as careers are likely to focus learning on exploitative innovation to demonstrate quick and salient role
performance. For part-time entrepreneurs viewing work as a job and identifying very little with the primary work role, may be more inclined to devote their entrepreneurial skillset to the side venture. Perhaps for these individuals, part-time entrepreneurship is simply a transitional stage (Folta et al, 2010; Raffiee & Feng, 2014) and the primary organization will reap very little benefit or positive spillover from the individual entrepreneurial endeavor.

Hypothesis 6: Employee role orientation moderates the association between engagement in part-time entrepreneurship and exploratory innovative behavior in organizational, employee roles, such that the association will be more positive when employee roles are viewed as callings than when viewed as careers or jobs.

Hypothesis 7: Employee role orientation moderates the association between engagement in part-time entrepreneurship and exploitative innovative behavior in organizational, employee roles, such that the association will be more positive when employee roles are viewed as careers than when viewed as callings or jobs.

Work-Unit Climate for Innovation. Climate refers to the shared perceptions of the types of behaviors that are encouraged in a work-unit through the meaning attributed to policies, practices, and norms within a group (Schneider, 1990). Climate is typically studied as an attribute of a group or entire organization rather than at the individual perception level (Schneider, Ehrahrt, & Macey, 2013). Thus, when group polices and norms reward and encourage innovative behavior, the group can be said to possess a climate for innovation (West & Richter, 2008; Scott & Bruce, 1994). Important components of a climate for innovation may include a supply of resources for organizational actors to utilize in engaging in innovative behavior, performance rewards associated with innovation, and frequent voicing of creative and
innovative ideas where organizational members feel safety in freely sharing ideas (Anderson & West, 1998).

When innovative behavior is the norm in a work-unit, it is more likely that part-entrepreneurs will be motivated to transfer their entrepreneurial knowledge and skills toward innovation at work. Perhaps most importantly, when a work-unit provides the psychological safety to promote and champion innovative ideas, part-timers are likely to feel free of the risk and uncertainty that often accompanies exploratory and exploitative innovation (Choi, 2007). Additionally, innovative group climates can help part-time entrepreneurs recognize how their entrepreneurial skills might be applicable in their work tasks by conveying clear messages about what exploratory and exploitative behavior looks like within the unit (Sung & Choi, 2014). However, a lack of innovative climate would suggest to part-timers that their learned entrepreneurial knowledge does not pertain to their employee roles or is not valued and therefore the relationship between part-time entrepreneurship and innovative behavior will be attenuated.

Hypothesis 8: Work-unit innovative climate moderates the association between engagement part-time entrepreneurship and exploratory innovative behavior in organizational, employee roles, such that the association will be more positive under conditions of high (rather than low) innovative climate.

Hypothesis 9: Work-unit innovative climate moderates the association between engagement in part-time entrepreneurship and exploitative innovative behavior in organizational, employee roles, such that the association will be more positive under conditions of high (rather than low) innovative climate.

METHODOLOGY

Sample
This study employed a survey based, cross sectional design in order to capture the relationships between the extent to which persons involved in running side businesses and entrepreneurial-like innovative behavior in their primary, employee roles. The decision to pursue a cross section of employee behavior is based on the desire to examine the extent to which state-like engagement in entrepreneurship affects current behavior. This is partly based on the theoretical difficulties associated with learning theory such that little is known about how entrepreneurial experiences can adequately affect current innovative behavior. For example, one might question whether an individual who at one time was engaged in entrepreneurship but for some years has not been associated with entrepreneurial processes still possess the capabilities for exploratory and exploitative innovation. Thus, theory has yet to deal with issues of time and when something is learned and subsequently put into practice or otherwise forgotten. A cross sectional design therefore allows for examination of current effects of entrepreneurial learning on innovation.

After reviewing proposed survey items, leaders of a large defense agency agreed to include the survey as part of a larger assessment of organizational health being conducted throughout the agency to determine satisfaction of employees and effectiveness of leadership. The instrument was distributed via the agency’s internal survey system to about 7,500 workers with 1,978 responses being initiated for a response rate of 26 percent. Of these, 733 surveys were deemed incomplete based on nonresponse to at least three or more entire sections of focal questions. Employees of a defense agency were selected for survey administration for several reasons. First, government agencies generally offer a greater diversity of workforce than private enterprises based on strict hiring regulations providing a diversity of respondents. For example, this study was composed of males (71%), females (29%), military personnel (31%), civil service
employees (69%), various education levels (27% with an advanced degree, 26% holding a college degree, 12% completing high school only, and 33% with some education beyond high school), ages ranging from 20 years old to 74 years old with an average of 37.68 years old.

Second, based on a review of position descriptions by the author, defense agencies generally take a team-based approach to organizing and distributing workload which aid in the assessment of work-unit climate and other team based variables; in this study, 137 unique teams were identified. Additionally, public agencies are typically known for being hierarchically organized. This allowed for greater diversity in the level of respondent allowing for the capture of both leader and subordinate perceptions of climate and not limiting engagement in entrepreneurship to only lower level employees but capturing the potential entrepreneurial activities of those who have gained a great deal of management experience. It should be noted that supervisors and subordinates answered the same set of questions. Third, public defense agencies offer access to a larger, and diverse set of operating units and operating functions in order capture greater variance in the innovativeness of a work unit. This sample is composed of responses from employees working in 43 different departments including finance and accounting, logistics, program management, human resources, procurement, maintenance, engineering, research and development, business development, etc. These units are also geographically dispersed in that the survey includes responses from employees working at eight different government installations located through Western, Midwestern, Eastern, Southeastern, and Northeaster U.S.

**Measures**

*Extent of engagement in part-time entrepreneurship.* To accurately capture the part-time entrepreneurship construct, it is important to properly define the variable and to determine
how other studies have proposed its measurement. Entrepreneurship itself is a broad concept with many definitions (Gartner, 1990; Shane, 2000). However, it is generally accepted that an individual engaging in entrepreneurship outside of a firm is concerned with identifying or creating opportunities to add value through establishing and managing new ventures or businesses (Davidson, 2005). Based on this definition and the literature review included in this paper, I characterize engagement in part-time entrepreneurship as individuals who are identifying and pursuing ideas for creating new ventures or are currently managing ventures while maintaining full-time employment with a primary organization. Thus, operationalizing engagement in part-time entrepreneurship requires identifying the extent to which an individual participates in both full-time employment and entrepreneurship. Asking respondents to identify the “extent” to which they believe they are engaged in entrepreneurship outside of work is important because it allows for variations in the responses. That is, some people may see themselves as more engaged in entrepreneurship than others. Additionally, it would be nearly impossible for a measurement device to capture the full-range of potential entrepreneurial businesses in which an individual may be engaged.

To generate a list of potential items, I drew from other measures seeking to determine the extent to which an individual engages in some activity outside of work. For example, a survey from Davis and Dibrell (unpublished) includes items such as “Please indicate the extent to which you engage in charitable organizations…local governments…civic organizations, etc.” To capture the extent of engagement in part-time entrepreneurship I included items which address entrepreneurial activities outside of the firm, to include initial stage opportunity identification and new venture creation activities. The survey asks respondents to “Please indicate the extent to which you engage in the following activities outside of work” (emphasis not included in actual
items): Involvement in founding an entrepreneurial business; Involvement in managing a for-profit or non-profit venture; Involvement in identifying opportunities to start your own business.” Additionally, because individuals participating in this survey hold full-time primary jobs, some distractor items were also included which ask the individual the extent to which they participate in non-entrepreneurial activities outside of the firm such as “involvement in charitable organizations.” A seven point Likert-type scale was used for scoring this each item. The complete list of items is included in Appendix A.

Exploratory factor analysis demonstrated a convergence onto a single factor with all item loadings greater than 0.60. However, during confirmatory factor analysis, two items were dropped from further analysis due to low loadings and poor fit which will be discussed shortly. These items asked the extent to which an individual was engaged in self-employment and in managing a for-profit and not for profit venture. Given the distinction in the literature between entrepreneurship and self-employment (Shane & Venkataraman, 2000) it is reasonable to see why this item did not load as highly as others. Additionally, asking respondents about their for-profit and nonprofit experiences may be confusing and seen as a request to distinguish a venture and therefore is reasonable to be dropped from future analysis. The reliability of the final three item scale was 0.97.

*Exploratory and exploitative innovative behavior at work.* Individual innovative behavior at work has been assessed in a variety of ways. Scott and Bruce (1994) relied on supervisor assessments of employee innovation with a simple six item measure ranging from generating creative ideas to developing plans for implementation of new ideas. Variants of this measure range from three item peer reported (Wu, Parker, & De Jong, 2014) measures to 25 item self-reported measures (Dorenbosch, van Engen, & Verhagen, 2005). Each scale attempts to
capture the stages of innovative behavior which include problem recognition and idea recognition, championing of ideas, and implementation (Scott & Bruce, 1994). While exploratory and exploitative innovation have primarily been examined at the organizational level, fewer studies have dealt explicitly with individual exploratory and exploitative innovation at work. Therefore, an individual-level scale of exploratory and exploitative innovative behavior at work was adapted from Jansen and colleagues’ (2006) organizational scales. These items capture each stage of innovation but distinguishes between exploratory and exploitative behaviors. On a seven point Likert-type scale, the measure asks respondents the degree to which they agree/disagree with statements like “I promote and champion innovative ideas to others” and “I seek out new technologies, processes, and techniques to improve how my work is accomplished.” (See full list of potential items in Appendix B).

Individual innovative behavior is similar, but distinct from, other types of discretionary behavior at work. For example, individuals with a proactive personality are described as agents of change, champions of ideas, and seekers of opportunities thereby improving their organizations (Siebert, Crant, Kraimer, 1999). While this personality trait certainly describes an individual’s attitude toward improvement, it does not go far enough in explaining individual innovative behavior inside the organization. Similarly, the personal innovativeness construct characterizes an individual’s willingness to experiment with and adapt to new ideas and technologies but does not specifically account for activities taken on by the individual to innovate in their work tasks (Agarwal & Prasad, 1998).

As mentioned previously, innovative behavior at work has been assessed through supervisor-, peer-, and self-reported devices. While assessments made by others are useful in evaluating behavior, some innovation scholars have noted that because a major stage in
innovation takes place in the mind of the innovator, peer judgements may not adequately capture the full range of innovative behavior in an employee (Janssen, 2000). Likewise, peers may not recognize the incremental innovations employees make in their individual work tasks and processes to become more effective and efficient as these changes may be “subtle” in nature (Janssen, 2000, p. 292). Scholars have also empirically demonstrated that “others-rated” workplace behaviors usually offer negligible incremental explanation over self-reported measures (Berry, Carpenter, & Barratt, 2012; Carpenter, Berry, & Houston, 2014). Therefore, in this study, I rely on self-reported assessments. The six items for exploratory innovative behavior had a coefficient alpha of 0.97 and the six items for exploitative innovative behavior had a reliability of 0.96.

**Goal orientation** was assessed using the 13-item established measure by Brett and VandeWalle (1999). The instrument has three subscales which capture the three dominant dimensions of goal orientations; learn, prove, and avoid. The five-item measure for learning orientation had a reliability coefficient of 0.96. The four-item measure for proving orientation had a reliability of 0.91 and the four-item measure of avoiding orientation had an alpha of 0.90.

**Employee role orientation.** Wrzesniewski et al, (1997) present a useful measure for assessing the degree to which an individual identifies with their working roles. The word “calling” “career” and “job” do not appear in the questionnaire which asks respondents to read three different scenarios about three different individual employees (Mr. A, B, and C.). The three situations describe characteristics of viewing work as job, career, or calling and respondents are asked to select the scenario/character which most accurately reflects their own selves. Responses range from 0 “not like me at all” to 3 “very much like me.” I will follow the same approach to measure an individual’s work-role identity. Respondents are then categorized into one of each of
the three types of employee role views based on their highest reported type of view. For example, a respondent selecting a score of “3” for Mr. A would be categorized as viewing the employee role as job. These categories were dummy coded into two dichotomous variables for use in regression equations such that employee role orientation as calling was equal to zero in both variables.

**Work-unit climate for innovation.** Climate is a representation of shared individual perceptions. Thus, the climate for innovation at the work-unit level will be assessed with a shortened, adapted instrument based on studies by Scott and Bruce (1994) and Anderson and West (1998). Shortened versions of the scales have been demonstrated to be robust indicators of innovative climates in many other studies (e.g. Somech & Drach-Zahavy, 2013; Sung & Choi, 2014). While studies have validated the multi-dimensional nature of group level climate for innovation (Anderson & West, 1998), other studies have found that a single construct is also appropriate (Somech & Drach-Zahavy, 2013). Because the theoretical level of analysis is the work-unit, each item is focused on the work unit or the supervisor in the work-unit as the referent (Chan, 1998).

In this study, work-unit climate for innovation was measured with a five-item instrument with respondents asked the degree to which the agree/disagree with statements referring to the unit-level innovativeness such as “Employees in my work unit regularly encourage others to explore new ideas and try new ways of doing things.” Responses were then aggregated to the appropriate work-unit level. In order to justify group aggregation, assessments of agreement were conducted. The mean rwg(j) (James, Demaree, & Wolf, 1984) for work-unit innovative climate was 0.76 (range = 0.71-0.87) which is above the common 0.70 threshold (Bliese, 2000). Intraclass correlations were also calculated for climate as suggested by Bliese (2000). ICC(1)
was 0.24 and ICC(2) was 0.74 which are both consistent with acceptable ranges suggested in aggregation and multi-level research (Bliese, 2000; Glick, 1985). Additionally, an ANOVA test was conducted and found significant (F=3.87) suggesting between-group variance in climate.

**Controls.** Several potential controls were included to ensure the validity of the proposed model. There are several potential demographic variables which may affect the validity of the part-time spillover effects relationships. Men and women may differ in their desires to engage in part-time versus full-time entrepreneurship in cases where one spouse is a sole provider for the family. Therefore, *Gender* is an essential control variable. *Age* may be another important control variable in that younger workers may naturally exhibit a greater amount of innovativeness in an organization due to technological savvy and simple generational differences. Likewise, older workers may be more inclined to engage in part-timer entrepreneurship as they may be further along in their careers and less willing to pursue self-employment in a full-time capacity. *Education* is also likely to affect an individual’s propensity to pursue entrepreneurship and to be innovative. Another important control variable may be *Organizational Tenure*. How long an individual has been with an organization is likely to affect their career orientation. Likewise, *Organizational Position* is likely to affect career views, learning orientations, entrepreneurial engagement and innovative behaviors. *Job Satisfaction* was controlled for as dissatisfaction may lead to engagement in part-time entrepreneurship as well as to lower innovative behaviors. This was measured using a simple three-item scale which asks respondents “In general, I am satisfied with my job; My job is very enjoyable; All in all, the job I have is great.” The reliability of this variable was 0.96. Finally, the number of years an individual has been engaged in running a side business (*Yrs as PT Entrepreneur*) is an additional variable to control for in this model as longer tenured entrepreneurs may be more or less inclined to be proactive in innovating in their employee roles.
ANALYTICAL TECHNIQUE AND RESULTS

Assessment of Validity

To assess discriminant validity, I first conducted a CFA using the Lavaan package in R (version 3.2.3). The seven multi-item constructs (did not include the categorical employee role orientation) were entered into a measurement model. This hypothesized model yielded a reasonably good fit ($\chi^2 = 1989.20, df = 475, p < .01; \text{CFI} = .97, \text{TLI} = .96, \text{GFI} = .90, \text{RMSEA} = .05$). The model fit was compared to other theoretically rational models and demonstrated better overall fit: Four factor model with explore and exploit innovation constrained to the same factor and all goal orientations constrained together ($\chi^2 = 9192.85, df = 490, p < .01; \text{CFI} = .81, \text{TLI} = .80, \text{GFI} = .65, \text{RMSEA} = .10$); Five factor model with explore, exploit and climate constrained to the same factor ($\chi^2 = 13774.01, df = 493, p < .01; \text{CFI} = .72, \text{TLI} = .69, \text{GFI} = .55, \text{RMSEA} = .15$); Four factor model with learning orientation, explore, exploit, and climate constrained to the same factor: ($\chi^2 = 15007.71, df = 490, p < .01; \text{CFI} = .69, \text{TLI} = .66, \text{GFI} = .53, \text{RMSEA} = .15$). Additionally, the average variance extracted estimates of each construct were compared to the squared correlations between corresponding pairs of constructs and in each case AVE’s were greater thereby establishing discriminant validity (Fornell & Larker, 1981). Convergent validity of the constructs is supported by significant factor loadings for all constructs above 0.80 and the magnitude of all AVE’s greater than 0.60 (Bagozzi & Yi, 1988).

Common method Variance Considerations

Because responses were gathered at one point in time and from single respondents, the relationship between measures could potentially be inflated due to bias in the measurement instrument. I employed several empirical and pre-analytical techniques to ease concerns regarding common methods variance as suggested by Podsakoff et al. (2003). I separated predictor and
criterion variables in different sections of the survey instrument and randomized the questions. Additionally, I added several distractor variables throughout the survey. Likewise, despite the survey being administered through the internal survey system, I included statements guaranteeing anonymity and technical professionals ensured that no personal or distinguishing characteristics could be used to identify any specific individual respondent. I analyzed a measurement model which included the seven hypothesized latent variables and added an orthogonal latent common factor. This model failed to converge suggesting poor fit. Additionally, I tested a single factor model (De Clercq et al., 2013). This model yielded significantly poorer fit than the hypothesized model ($\chi^2 = 26261.01, df = 496, p < .01; \text{CFI} = .45, \text{TLI} = .42, \text{GFI} = .43, \text{RMSEA} = .20$). Finally, the hypothesized model contains several tests of moderation of which several relationships are statistically significant suggesting that common methods variance does not likely explain interaction effect variances (Podsakoff, MacKenzie, & Podsakoff, 2012).

**Descriptive Statistics and Correlations**

Table 1 presents the means, standard deviations and correlations among all the variables as well as the average variance extracted for the focal variables in the matrix diagonal. Initial evidence supporting hypotheses 1 and 2 are demonstrated in the significant correlation between the extent of engagement in part-time entrepreneurship and both exploratory and exploitative innovative behavior. Based on the relatively low correlations among the variables of interest (with one exception: explore-exploit relationship) there does not seem to be much concern for multicollinearity. Additionally, variance inflation factors were calculated and all values were below 2.20 suggesting multicollinearity is not an issue (Neter et al., 1996).

"Insert Essay Two Table 1 Here"
Multi-level Model Hypothesis Testing

All employees in this sample were nested in work-units. As such, I used multi-level (hierarchical) modeling, specifically random coefficient modeling (Hoffmann et al., 2000) to test the effects of individual engagement in part-time entrepreneurship on individual behaviors, the individual level interactions with these relationships, and the cross-level interaction of work-unit innovative climate with part-time entrepreneurship on individual innovative behaviors. All predictor variables (except for the dummy coded views of employee role variables) were group-mean centered. Group-mean centering is recommended in studies where the work-unit, not the organization, represents the highest level of analysis because group-mean centering produces unbiased estimates of the within-group slope (Hofmann & Gavin, 1998; Hofmann, Morgeson, & Gerras, 2003).

Before testing any hypotheses, null models were examined to determine the between-group variance in the dependent variables. These null models included no predictor variables for exploratory or exploitative innovative behavior. The null model for exploratory innovative behavior was significant at $p<.01$ with an ICC(1) of 0.17 suggesting that 17% of the variance in exploratory individual behavior resides between groups. The null model for exploitative innovative behavior was significant at $p<.01$ with an ICC(1) of 0.20 suggesting that 20% of the variance in exploitative individual innovative behavior resides between groups.

**Individual-level main effects.** Hypotheses 1 and 2 predicted that the extent of engagement in part-time entrepreneurial roles would positively impact the degree to which people enacted exploratory and exploitative innovative behavior in employee roles respectively. I estimated a Level 1 model for each dependent variable with part-time entrepreneurship and all control variables as predictors with no Level 2 predictors and allowed a random intercept to vary by work-
unit corresponding to the nesting of employees within work-units (Table 2, Model 1). Results support both Hypothesis 1 and 2 ($\gamma = 0.47, p<.01$ for exploratory; $\gamma = 0.48, p<.01$ for exploitative).

"Insert Essay Two Table 2 Here"

**Individual-level interaction effects.** The next set of hypotheses analyzed were the individual level interactions of the various goal orientation dimensions, employee role orientation, and part-time entrepreneurship. In these models, each of the goal orientation and dummy coded employee role orientation variables were added to the random coefficient model along with the interaction variables. Hypothesis 3 was supported as part-time entrepreneurship and learning orientation interacted and positively affected exploratory innovative behavior ($\gamma = 0.09, p<.01$) as seen in Table 2, Model 2. The hypothesized relationship is further supported by the graphical representation of the interaction (Figure 2) as high learning orientation increases the effect of part-time entrepreneurship on exploratory innovation. Hypothesis 4 predicted that proving goal orientation would strengthen the positive relationship between part-time entrepreneurs and their exploitative innovative behavior at work. Support for this hypothesis is garnered by a significant interaction term in Table 2, Model 2 ($\gamma = 0.03, p<.05$) and the graph of the interaction in Figure 3. Hypothesis 5 positing a negative influence from avoidance orientation on part-time entrepreneurship and both behavioral outcomes was not supported.

"Insert Essay Two Figure 2 Here"

"Insert Essay Two Figure 3 Here"

Hypotheses 6 and 7 state that the manner in which an individual views his/her employee role will influence the effect of part-time entrepreneurship on both exploration and exploitation innovation. As stated earlier, two dummy coded variables with the employee role orientation as a calling coded as zero, were entered into the random coefficients model and interacted with the part-
time entrepreneurship variable. Neither of these hypotheses are supported; Table 2, Model 2 shows that the coefficients for the interaction terms are in the predicted direction but only supported at the p<.01 significance level and only when the role as a calling is compared to the role as a career. (γ = -0.07, p<.10 for exploratory; γ = -0.06, p<.10 for exploitative). Simple slop tests confirmed slope differences for all significant interaction effects.

**Work-unit level (cross-level) interaction effects.** The final set of hypotheses predict that the relationship between part-time entrepreneurship and innovative behavior at work will be influenced by the climate for innovation fostered within a work-unit. In this final model (Table 2, Model 3), the aggregated perceptions of the work-unit as innovative were entered into the random effects equations and the interaction between the work-unit climate and individual engagement in part-time entrepreneurship was also added. Hypothesis 8 dealt with exploratory innovative behavior and was supported (γ = 0.06, p<.05). The graph of this relationship further supports Hypothesis 8 demonstrating that work-unit climate indeed strengthens a part-time entrepreneur’s engagement in exploratory innovation (see Figure 6). However, there was not sufficient evidence to support Hypothesis 9 associated with exploitative innovative behavior.

“Insert Essay Two Figure 4 Here”

**Significant Non-hypothesized relationships.** During analysis, several non-hypothesized relationships were found to be significant. The number of years an individual has been engaged in part-time entrepreneurship shows a positive direct relationship with both innovative behavior types at work (γ = 0.14, γ = 0.15, p<.05). This finding aligns with the tenets of the entrepreneurial learning theory in that greater time in entrepreneurship results in increases to innovative capabilities. Job satisfaction was also found to positively impact both exploration and exploitation innovation (γ = 0.11, γ = 0.10, p<.05). It is likely that those who are happy with their employee
roles are more willing to engage in proactive, innovative behavior at work and especially aligns with the argument that those who view their employee roles positively are willing to translate learned skills from outside entrepreneurship roles to work roles. Interestingly, learning goal orientation was not a significant predictor of innovative behavior but proving ($\gamma = 0.21$, $\gamma = 0.18$, $p<.01$) and avoiding ($\gamma = -0.13$, $\gamma = -0.14$, $p<.01$) goal orientations were both shown to impact the behavior at work. Viewing the employee role as a calling versus as a career was also a significant predictor of innovation albeit at the $p<0.1$ significance level. There was also a cross-level direct effect of innovative work group climate on innovative behavior for both individual exploration and exploitation behavior ($\gamma = 0.27$, $\gamma = 0.34$, $p<.01$) which is consistent with group climate theory which suggests that the climate of a work group is an important predictor of the behaviors of individual team members (Hirst, van Knippenberg, Zhou, Zhu, & Tsai, in press). Finally, there was a significant interaction of engagement in part-time entrepreneurship with learning orientation on exploitative innovative behavior.

**DISCUSSION**

**Contributions and Future Directions**

Careers research has tended to dichotomize career choice between self-employment and wage-employment (Brenner, Pringle, & Greenhaus, 1991; Douglas & Shepherd, 2002). However, recent research indicates that many individuals undertake both organizational employee and business owner roles. Indeed, many entrepreneurs operate ventures on a part-time basis while maintaining primary organizational jobs. This unique form of entrepreneurship potentially has a great deal to offer both entrepreneurship and organization scholars because of the role duality. In this paper, I theorized that engagement in part-time entrepreneurship is likely to affect primary job performance. Based on entrepreneurial learning theory, I proposed that
individuals engaged in running part-time entrepreneurial ventures gain a great deal of entrepreneurial knowledge and skills in terms of developing the capacity to innovate. Drawing on role accumulation and enrichment literatures, I argued part-time entrepreneurs have the unique opportunity of directing their entrepreneurial knowledge and skillset beyond the entrepreneurial venture to primary organizational tasks. Thus, I conceptualized a positive entrepreneurial venture to primary organization spillover effect in the form of innovative behaviors in the primary job.

The presented model contributes and extends entrepreneurial learning theory, role accumulation theory, internal entrepreneurship literature, organizational behavior and entrepreneurship research. While few studies examine this unique form of entrepreneurship, fewer, if any, have proposed effects to the primary organization. In doing, so I offer a plethora of future research opportunities for entrepreneurship and organization behavior scholars. First, enrichment to the primary organization represents only one direction of the part-time entrepreneurship spillover. However, role literature suggests spillover is bi-directional (Greenhaus & Beutell, 1985) and therefore the entrepreneurial role may benefit greatly from the organizational role. While some literature has examined the potential for greater access to capital (Petrova, 2012), there may be a great deal more an individual garners from the primary organization that can be used to enrich the venture. For example, a part-time entrepreneur may have access to significant social capital within the organization which can be leveraged to the part-time venture. Additionally, the individual may develop a great deal of human capital in the form of knowledge, skills, and abilities which can be used in the venture such as managerial and problem solving skills.
In this paper, I focused on only one potential positive spillover effect from engaging in part-time entrepreneurship; however, there may be several more ways in which part-time entrepreneurship enriches the organization. For example, along with innovative behavior, a part-time entrepreneur may exhibit great creativity and bricolage ability. Additionally, these persons may be more willing to work outside of their routine tasks to accomplish organizational goals and thereby exhibit organizational citizenship behaviors. Perhaps most intriguing, part-time entrepreneurs may develop strong social network ties through their venture activities and network theory suggests the primary organization may benefit from these weak ties (Granovetter, 1983). Similarly, a part-time entrepreneur may exhibit a greater ability and propensity to develop social capital inside the firm with coworkers. This social capital may provide a means to accomplish tasks more efficiently and effectively and may generate greater innovative solutions to workplace problems by capitalizing on positive coworker exchanges (Sherony & Green, 2002).

According to the role literature, roles may conflict as well as enrich (Sieber, 1974). Thus, future research might explore the potentially negative effects of part-time entrepreneurship. This may be especially true when the moderating mechanism of employee role orientation is viewed more as a career and/or job than a calling. Thus, the part-time entrepreneur viewing work as a job may devote more and more time and mental energy to the entrepreneurial venture and begin identifying with the venture more than the primary role as employee. This may affect the individual’s organizational identification, organizational commitment, job dissatisfaction, withdrawal attitudes and behaviors, turnover intentions, and counterproductive workplace behaviors. Indeed, the accumulation of an additional role may result in greater stress and anxiety in the life of the individual leading to negative outcomes.
Additionally, I posited that an individual’s learning orientation as well as employee role orientation may moderate the positive spillover effect from engaging in part-time entrepreneurship. In doing so, I establish important boundary conditions which help to explain this unique phenomenon. Future research might explore additional boundary conditions of the proposed relationships such as part-time entrepreneurial motivations. One’s reasoning for starting a business while maintaining primary employment would significantly enrich understanding of this entrepreneurship context and why there may be positive or negative spillover. For example, an individual may be driven to part-time entrepreneurship based on dissatisfaction with the primary organization or lack of opportunity to express creativity and entrepreneurial desires. In this case, it is unlikely that the individual will focus much energy on transferring entrepreneurial knowledge to primary work tasks. However, an individual driven to part-time venture creation based on a desire to pursue development of an additional passion may enjoy the hybridity of wage and self-employment and therefore be more likely to exert effort on behalf of both roles. Another potential condition of the spillover relationship may be the organizational requirement or need for innovative behavior. For example, different organizational structures are more conducive to creativity and innovation (Damanpour, 1991; Meadows, 1980) and therefore jobs in certain organizational structures may need/require greater (or lesser) personal innovativeness.

**Practical Implications**

In organizations interested in promoting and emphasizing innovative thinking and behaviors from employees, this research has important implications. Leaders of an organization are responsible for planning and implementing organizational programs which drive creativity and innovation. Therefore, as a means of increasing employee ability to think and act
innovatively in the primary organization, leaders might consider supporting employee desires to act entrepreneurially outside the boundaries of the firm. While this concept may at first appear counterintuitive (leaders encouraging employees to pursue self-employment activities) it aligns with other forms of employee development programs which take place outside of the firm. For example, leaders in organizations often encourage and even fund educational opportunities for employees despite the risk that employees may become overqualified with their current jobs and leave the company for another position (Feuer, Glick, & Desai, 1987). Encouraging employees to engage in entrepreneurial activities outside of the organization may result in some employees eventually transitioning to full-time self-employment but perhaps many others will remain engaged with the organization and transfer entrepreneurial knowledge to work-related tasks and procedures.

**Limitations**

Despite the usefulness of these findings, there are several limitations associated with the approach presented herein. First, the nature of the data (cross sectional) does make it difficult to draw casual claims associated with the model. Therefore, future research might consider a longitudinal approach to truly determine how innovative abilities are developed over time through entrepreneurship and if there is a corresponding increase to an employee’s innovative behavior in the workplace. Second, this study relies on designation of an employee role as a calling, career, or job to determine the centrality and salience of the employee role. However, this assessment does not directly measure the importance placed on the employee role and further it does not consider a role’s relevance to additional roles which might more directly speak to the centrality and importance of the employee role (Carlson et al, 2000). Therefore, future research might consider creating a scale in which the valence of employee roles is
assessed relative to entrepreneurial roles. Third, the measure of engagement in part-time entrepreneurship does not capture the breadth and range of activities associated with the entrepreneurial process. For example, this measure does not ask the extent to which one is engaged in scanning the market for opportunities to create a venture. Fourth, while justification of the inclusion of self-assessed innovative behavior was provided earlier in this study, there may be good reason to believe that ratings performed by peers or supervisors are more useful and accurate. That is, an employee’s supervisor might be asked to assess the degree to which an employee engages in exploratory and exploitative innovative behavior in the workplace thereby providing a less subjective behavioral evaluation.

**CONCLUSION**

In this essay, I have explored a unique, previously unexplored side of the relationship between organizations and entrepreneurship; the degree to which engaging in entrepreneurially roles can affect innovation in employee roles. The aim of this study was to shed light on the fact that many entrepreneurs are engaged in a great deal of roles outside of their ventures and consideration of the interactions among these roles has important consequences for their lives. Further, I presented several important individual and organizational factors that can impact these relationships to provide a better understanding of the interrole dynamics of entrepreneurs who are also employees.
## Essay Two Table 1. Descriptive Statistics and Correlations (AVE’s in the diagonal)

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<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
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<th>4</th>
<th>5</th>
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<th>8</th>
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<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
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<td></td>
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<td>(.72)</td>
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<td>6. Innovative Climate</td>
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<td>.14*</td>
<td>.19*</td>
<td>.04</td>
<td>.24**</td>
<td>(.70)</td>
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<td>7. Explore Innovation</td>
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<td>1.76</td>
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<td>.11**</td>
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<td>.13*</td>
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<td>8. Exploit Innovation</td>
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<td>.50**</td>
<td>.11**</td>
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<td>-.07*</td>
<td>.08**</td>
<td>.14**</td>
<td>.84*</td>
<td>(.84)</td>
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<td>-.03</td>
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<td>.03</td>
<td>.07</td>
<td>.05</td>
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<td>.00</td>
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<td>-.08*</td>
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<td>-.01</td>
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<td>-.02</td>
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<td>-.09*</td>
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<td>-.00</td>
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<td>-.08*</td>
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<td>.08**</td>
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<td>.03</td>
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<td>-.07*</td>
<td>-.12</td>
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<td>-.16*</td>
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<td>14. Years as P.T. Entrepreneur</td>
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<td>9.89</td>
<td>.04</td>
<td>.30</td>
<td>.08*</td>
<td>-.04</td>
<td>-.05*</td>
<td>.05</td>
<td>.07</td>
<td>-.08</td>
<td>.46*</td>
<td>-.09*</td>
<td>.71*</td>
<td>-.19*</td>
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<td>15. Job Satisfaction</td>
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<td>1.74</td>
<td>-.07*</td>
<td>.10**</td>
<td>.18**</td>
<td>-.01</td>
<td>.33**</td>
<td>.54**</td>
<td>.07**</td>
<td>.08*</td>
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<td>.05</td>
<td>-.07</td>
<td>.01</td>
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</table>

*Note.* N=1245  
Average variance extracted for focal study variables are included in the matrix diagonal in parentheses.  
* p<.05; **p<.01
## Essay Two Table 2. Results of Moderated Multi-Level Modeling

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Model 1 PT Entrepreneurship and Controls</th>
<th>Model 2 Level 1 Variables and Interactions</th>
<th>Model 3 All Levels and Cross Level Interactions</th>
</tr>
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<tbody>
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<td>Dependent Variable</td>
<td>Dependent Variable</td>
<td>Dependent Variable</td>
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<td>Exploratory Innovation</td>
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<td>Exploitative Innovation</td>
<td>Exploitative Innovation</td>
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<tr>
<td>Intercept</td>
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<td>2.74**</td>
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<td>-0.01</td>
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<td>-0.01</td>
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<td>-0.01</td>
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<td>Yrs. As P.T. Ent.</td>
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<td>0.10*</td>
<td>0.04*</td>
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<tr>
<td></td>
<td>0.19*</td>
<td>0.10*</td>
<td>0.04*</td>
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<td>0.11*</td>
</tr>
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<td>0.48**</td>
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<td>0.02</td>
</tr>
<tr>
<td></td>
<td>0.02</td>
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<td>0.03</td>
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<tr>
<td>Proving G.O.</td>
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<td>0.21**</td>
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<td></td>
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<td>0.18**</td>
<td>0.18**</td>
</tr>
<tr>
<td>Avoiding G.O.</td>
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<td>-0.14**</td>
<td>-0.13**</td>
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<td>-0.14**</td>
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<td>-0.14**</td>
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<td>Job (Dummy Coded)</td>
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<td>0.03</td>
<td>0.08</td>
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<td>Career (Dummy Coded)</td>
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<td>Level 1 Interactions</td>
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*Note. Level 1, N=1245, for Level 2 N=137. For Gender, 0=female, 1=male.

* Employee role orientation (composed of three categories: job, career, calling) dummy coded such that in each variable the role viewed as a calling is equal to 0.

* p<.05; **p<.01
Essay Two Figure 1. Conceptual Model of Part-time entrepreneurial to employee role spillover

Work-unit level

Individual level

Engagement in Hybrid Entrepreneurship Role

Work-unit Climate for Innovation +

Exploitative Innovative Behavior in Employee Role

Exploratory Innovative Behavior in Employee Role

Goal Orientation (Prove +, Avoid -, Learn +)

Employee Role Orientation (Role as calling +, career, or job)
Essay Two Figure 2. Moderating Effect of Learning Goal Orientation on the Relationship Between Part-time Entrepreneurship and Exploratory Innovative Behavior

![Graph showing the relationship between part-time entrepreneurship and exploratory innovative behavior with different levels of learning goal orientation.](image-url)
Essay Two Figure 3. Moderating Effect of Proving Goal Orientation on the Relationship Between Part-time Entrepreneurship and Exploitative Innovative Behavior
Essay Two Figure 4. Moderating Effect of Work-Unit Climate on the Relationship Between Part-time Entrepreneurship and Exploratory Innovative Behavior
ESSAY 3:

Work Conflicting With…Work? Examining the Effects of Running a Side Business on Employee Work and Entrepreneurial Venture Roles

A great deal of research has been dedicated to understanding conflict between work and family domains (Eby, Maher, & Butts, 2010). Years of scholarship has determined that this important form of interrole conflict can have pointedly negative effects on individual attitudes and behaviors both at work and at home (Allen, Herst, Bruck, & Sutton, 2000). Yet, despite the significant findings regarding these critical impacts for organizational behavior research and practice, few studies have sought to identify and examine other forms of interrole conflict that potentially alter employee conduct. Given the changing nature of careers, some workers are placing greater import on garnering success and enjoyment from sources outside of their primary work roles (Arthur, Khapova, & Wilderom, 2005; Chudzikowski, 2012; Sullivan, 1999) making it likely that employees are engaged in a greater number of roles outside of organizational employee roles than ever before. Thus, studies focusing on unique sources of role conflict impacting individual work outcomes are necessary to better understand and manage employees (Wilson & Baumman, 2015).

An often-overlooked role that many employees in existing organizations undertake is part-time entrepreneur. According to some labor statistics, between 10 and 15% of working adults in the United States run side businesses (US Bureau of Labor Statistics, 2014; Selz.com, 2015). While considered a common occurrence by most scholars (Shane, 2012), undertaking new
venture creation while maintaining regular wage employment has only recently gained traction in the entrepreneurship and management literature. However, these studies suggest that “hybrid” or “part-time” entrepreneurs likely account for the majority of new entrepreneurs (Burke, Fitzroy, & Nolan, 2008), and that not all people running side businesses fully transition to full-time entrepreneurial or self-employment roles (Folta, Delmar, & Wennberg, 2010; Raffiee & Feng, 2014). Thus, some individuals in organizations are faced with making tradeoffs between demands in their roles as employees and their commitments to starting and managing entrepreneurial ventures. The purpose of this study is to shed light on the unexplored dynamic between part-time entrepreneurial roles and regular employee roles to determine the effects of a unique type of interrole conflict: work-venture conflict.

Role dynamics literature states that roles often conflict when the pressures generated through participation in multiple roles are “incompatible” (Greenhaus & Allen, 2011, p.165). This leads to difficulty in successfully performing the requirements of multiple roles because of the time constraints, stress and fatigue, and behavioral incongruities inherent in differing roles (Greenhaus & Beutell, 1985). Although there are instances in which creating a side business is pursued because of economic pressures (Gilad & Levine, 1986), the choice to enter entrepreneurship, especially in a part-time capacity, is typically discretionary (Folta, et al, 2010). As such, in this paper I take a source-attribution approach (Grandey, Cordeiro, & Crouter, 2005; Kinnunen, Feldt, Geurts, & Pulkkinen, 2006) in suggesting that employee work roles and entrepreneurial venture roles interfere with one another such that individuals starting new ventures view employee role requirements as hindrances to their success as entrepreneurs vice versa (new venture requirements hamper success as employees). I propose that when part-time entrepreneurs attribute blame to the
organizational employee domain as the source of conflict, satisfaction with, and innovative behavior in, employee roles decreases while intentions to leave the organization increase.

Similarly, when an individual attributes blame to the new entrepreneurial pursuit for an inability to perform as an employee, venture related outcomes such as persistence and bricolage behavior within the venture decrease. Consequently, I put forth a new construct of “work-venture conflict” which can manifest as employee work roles interfering with venture roles and venture roles interfering with employee work roles.

Past research on interrole conflict has also shown that conflict between two roles is highly influenced by individual identification with a given role or the psychological centrality of a role to the individual’s self-concept (Stryker, 1968, Carr, Boyar, & Gregory, 2007). That is, the importance or value placed on a particular role may drive the amount of time, energy, and other resources a person invests in the role as well as how they perceive the source the conflict (Carlson & Kacmar, 2000). For persons engaged in part-time entrepreneurship, the degree to which their employee and entrepreneurial roles are central to who they are is likely to affect the extent to which negative outcomes are experienced. As such, I also explore the impact of work-venture centrality, employee roles as more central relative to venture roles and vice versa, as moderators of the proposed conflict to work/venture outcomes relationships. Thus, when employee roles are more central than venture roles, the negative relationships between work-to-venture conflict and work outcomes are attenuated. Likewise, when venture roles are more central, the negative relationships between venture-to-work conflict and venture outcomes are attenuated.

This study contributes to both entrepreneurship and organizational behavior fields of research by shedding light on a common form of entrepreneurship (hybrid or part-time) which
has largely gone unnoticed. First, this study introduces a new, and unique form of interrole conflict adding to the vast body of literature concerned with the effects of role conflict on work attitudes and behaviors. Answering calls for greater attention to role relationships in domains other than family provides opportunities for a more complete understanding of the roles employees are engaged in and the effects of role dynamics on work outcomes. Second, this work adds to entrepreneurship literature regarding the challenges associated with the new venturing process by proposing that an individual’s work role may interfere with venture behaviors which are critical to venture progress. This study offers a realistic and missing component to the study of the nascent entrepreneurship stage in that it explores the very real possibility that entrepreneurial pursuits conflict with responsibilities in an individual’s primary employment role. Third, this study speaks to the importance of identity and centrality of an entrepreneur’s venture in experiencing success as an entrepreneur as well as in other life roles such as regular employment. While placing a great deal of importance on one’s venture may further entrepreneurial pursuits, there may be conflict ramifications for success in the primary role as employee.

I proceed with a brief explanation of the difference between hybrid (part-time) entrepreneurial roles and employee roles and review existing literature concerning engagement in these dual roles. I then present theoretical justification for work-to-venture and venture-to-work conflict on some relevant employee and venture roles outcomes and hypothesize the influence different forms of role centrality may have on the conflict relationships. Following a description of the methodology and analytical technique, I present results of hypothesis testing and discuss the impacts my findings have on organizational and entrepreneurship theory and practice along with the studies limitations and potential directions for future research.
THEORETICAL BACKGROUND AND HYPOTHESES

Part-time Entrepreneurial Roles and Employee Roles

Roles are comprised of expectations and prescriptions related to behaviors in each environment (Biddle & Thomas, 1966; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Although as a field of study entrepreneurship has advanced significantly, disagreement abounds concerning what constitutes an entrepreneurial role (Shane, 2000). Entrepreneurial roles are typically characterized as those reflecting the pursuit of “opportunities to create future goods and services” (Shane & Venkatraman, 2000: 218). Because we are interested in how entrepreneurial roles interact with employee roles, we define an entrepreneurial role as the engagement in the creation, management, and ownership of a venture (Alvarez & Busenitz, 2001). An employee role serves as “the boundary between the individual and the organization” (Schuler, Aldag, & Brief, 1977: 111) and is comprised of the responsibilities and requirements pertaining to work for which an employing organization will compensate. Thus, an entrepreneurial role is distinguished from an employee role in which an individual is employed by an existing organization in a traditional employment relationship.

Most research assumes that employee and entrepreneurial roles are mutually exclusive. The greater body of entrepreneurship literature, particularly the stream which examines entrepreneurship as a career, assumes that individuals must make a dichotomous choice between the two role domains (Douglas & Shepherd, 2002; Dyer, 1994). Few studies, save those examining the careers of freelance contractors (Fenwick, 2006), have paid adequate attention to the possibility that individuals might engage in both organizational and self-employment roles at the same time. However, both popular and scientific studies acknowledge the existence of organizational-entrepreneurship employment mixing. For example, the popular entrepreneurship
magazine *Entrepreneur* has published several articles focusing on the advantages of starting an entrepreneurial venture while maintaining full-time, organizational employment (Entrepreneur, Goodman, 2005; Zwilling, 2014). Likewise, research in labor economics has examined individual time “mixing” between organizational and self-employment (Parker, 1997). Folta et al. (2010) found that in 2001, roughly 44% of entrepreneurs in their sample were engaged in hybrid venturing. Similarly, Burke et al. (2008) observed that entrepreneurs tended to participate in both paid-employment and self-employment work simultaneously in greater numbers than those dedicated solely to entrepreneurship.

Research on hybrid entrepreneurship often assumes that simultaneous employee/entrepreneurial role engagement is primarily a transitional stage (Raffiee & Feng, 2014) in which eventual full-time entrepreneurial entry will occur. For example, Folta et al. (2010) tested a transitional model from organizational to self-employment and found that only entrepreneurs who had a high ratio of self-employment to wage-employment income ever transitioned to full-time entrepreneurship. Raffiee and Feng (2014) also view hybrid entrepreneurship as a transitional stage and find that ventures operating on a hybrid basis have higher survival rates than those operating on a full-time basis. Based on the transitional nature of hybrid entrepreneurship, it is important to conceptualize conflict between entrepreneurial and employee roles as dynamic. That is, during the nascent stage of entrepreneurial entry from organizational employment, conflict, centrality, and related outcomes are likely to evolve and therefore the proceeding theory and study treats these relationships as such.

**Work-Venture Conflict**

From role theory and the literature related to the dynamics among multiple roles, two dominant perspectives of interrole interaction have emerged: domain specificity and source
Both approaches view stressors associated with multiple role involvement as sources of conflict. However, the domain specificity approach posits that the negative consequences associated with role conflict occurs in the receiving role domain (Frone, Russell, Cooper, 1992). For example, in the case of the part-time entrepreneur, if the demands of one’s employee role interfere with the demands of starting a new venture, the entrepreneur may become frustrated and dissatisfied with the role as entrepreneur because of the inability to successfully meet the challenges associated new venture creation. Perhaps the entrepreneur will experience a decrease in persistence with the new venture or view the risks associated with continued entrepreneurship as too great to overcome. In any case, the domain specificity perspective will hold that the negative consequences of work interfering with the venture result in the entrepreneurial role domain but largely ignore the potential consequences to the work domain.

The source attribution approach largely considers affective reactions to conflicting roles such that the role actor attributes the blame for the inability to meet role demands in one domain to another role which is where the resulting performance is affected (Lazarus, 1991). Thus, for the part-time entrepreneur, if the employee work role interferes with the role of entrepreneur and results in difficulty meeting the requirements of new venture creation, the entrepreneur attributes this conflict to the employee role and may become disillusioned and dissatisfied as an employee because it is viewed as the source of the conflict.

In this paper, I take a source attribution perspective in considering the dynamic between part-time entrepreneurial roles and employee roles for two main reasons. First, because entrepreneurship for most people is a discretionary choice, often infused with passion and emotion (Cardon, Wincent, Singh, & Drnovsek, 2009), an affective response model such as the
source attribution approach lends itself to exploring this new form of interrole conflict. Second, recent meta-analytic results suggest that the source attribution approach is a more powerful predictor of interrole conflict than the domain specificity perspective (Shockley & Singla, 2011).

Conflict between roles is bi-directional in nature (Greenhaus & Beutell, 1985; Rizzo, House, & Lirtzman, 1970) in that the conflict arising from engagement in multiple roles is likely the result of each role interfering with the other at a given time. For hybrid entrepreneurs, it is assumed that employee roles often interfere with entrepreneurial role requirements as well as entrepreneurial roles interrupting employee role responsibilities. In what follows, I explore the bi-directional nature of conflict between employee and entrepreneurial roles. I first explain conflict as a result of employee role interference with entrepreneurial venture roles, or “work-to-venture” conflict and hypothesize the effects of this conflict on employee role outcomes such as job satisfaction, turnover intentions, and innovative employee behavior. Then, I describe the conflict arising from entrepreneurial roles interfering with employee roles or “venture-to-work” conflict and hypothesize resulting venture role outcomes such as persistence and bricolage behavior in the entrepreneurial venture. (See Figure 1) I will then proceed to explain how relative role centrality influences both sets of relationships.

“Insert Figure 1 Here”

**Work-to-Venture Conflict.** As previously mentioned, inherent in entrepreneurship is emotion and passion because they are key elements in “fostering creativity and the recognition of new information patterns” needed for pursuing entrepreneurial opportunities (Cardon, Gregoire, Stevens, & Patel, 2013, p. 373). Starting a new venture is a challenging and uncertain process and entrepreneurs require inspiration and motivation driven by their passions to help them persist through the entrepreneurial process. Entrepreneurial passion is defined as an entrepreneur’s
“intense affective state accompanied by cognitive and behavioral manifestations of high personal value” (Chen, Yao, & Kotha, 2009). Thus, when an individual engages in new venture creation, even in a part-time capacity, he/she is likely to experience “intense positive feelings” in the entrepreneurial role (Cardon et al, 2013, p. 375). Because of the passion, positivity, and excitement embedded in the new venturing process, it is likely that entrepreneurs see other roles as a distraction to progress in their entrepreneurial roles rather than this new role impeding success existing roles such as the organizational employee role.

The sources of conflict between any roles may be based on time, strain, and behavioral pressures (Greenhaus & Beutell, 1985). Early stages of the venturing process often require a great deal of time and entrepreneurs feel time-pressured in particular to get their businesses off the ground quickly (Mitchell, Busenitz, Lant, McDougall, Morse, & Smith, 2002). For part-time entrepreneurs, the time requirement is likely even more challenging than for full-time entrepreneurs because their employing organizations require time devoted to work tasks. Employees in today’s working landscape are often being asked to be available for the organization for extended hours beyond typical work days (Major, Klein, & Ehrhart, 2002). Indeed, employee availability via communication technologies has quickly become standard practice (Chesley, 2014). Thus, time devoted to progress in new ventures is likely highly constrained for part-time entrepreneurs. Similar then to other instances of work interfering with outside-work roles (Burke, 1988; Greenhaus & Beutell, 1985), when part-time entrepreneurs feel they lack the time necessary to develop their new ventures because of the time required for wage-employment work tasks they are likely to be less satisfied with their employee roles and give less effort in terms of demonstrating positive behaviors in these roles such as being
innovative. Additionally, they are likely to experience increased intentions to leave their organizations in favor of their venturing roles.

Strain-based pressures arise from negative experiences in one role carrying over to another role. For example, anxiety, fatigue, or tension experienced in a given role may result in an inability to perform well in another role or can create similar feelings in other roles (Shockley & Singla, 2011). Sources of strain in employee roles are well documented (Van der Doef & Maes, 1999). For example, project deadlines, physically and emotionally demanding tasks, poor coworker or supervisor relationships, and economic threats to continued employment may all contribute to an employee feeling tense, anxious, or fatigued at work. If part-time entrepreneurs are unable to perform in their venture roles they may blame the strains inherent in their daily jobs and exhibit reduced satisfaction in employee roles and increased intentions to leave these roles. Additionally, feelings of stress and strain likely have negative impacts to an employee’s desire to engage in innovative behavior and creativity at work (Van Dyne, Jehn, & Cummings, 2002).

Behavior-based pressures can occur when behavioral expectations in one role are incompatible with those in another. This may be especially pertinent for part-time entrepreneurs as they must demonstrate a great deal of creativity and innovativeness in overcoming the challenges associated with exploiting market opportunities (Hood & Young, 1993). However, innovative behavior has become a performance staple by most employers such that employee roles require creative solutions to organizational problems and innovation in improving everyday work tasks (Yanadori & Cui, 2013). Thus, the innovative behavioral requirements of employee and entrepreneurial roles may be incompatible and part-timers may be less willing to innovate in their primary organizational roles. Therefore, based on the source-attribution perspective, part-time entrepreneurs likely attribute the time, strain, and behavioral-based sources of conflict to
their roles as organizational employees resulting in work interfering with the venture. This attribution of conflict to employee roles is likely to lead to less satisfaction with employee roles and motivation to exhibit positive, innovative behavior these roles, as well increasing intentions to leave organizational employment. Based on these arguments, I formally state the following work-to-venture conflict main effects:

_Hypothesis 1: Increased work to venture conflict is negatively related to (a) job satisfaction and (b) innovative behavior in employee roles and positively related to (c) turnover intentions in employee roles._

**Venture-to-Work Conflict.** While the early stages of the venturing process are filled with passion and excitement, it is unlikely that the hybrid entrepreneur has fully developed an entrepreneurial identity such that all sources of conflict are attributed to roles outside of entrepreneurial roles. In fact, theory suggests nascent entrepreneurs are likely engaged in mainly aspirational entrepreneurial identity work but that other identities remain more salient (Farmer, Yao, & Kung-Mcintyre, 2011) such as employee work roles. Thus, it is highly likely that while employee work roles interfere with new venture roles, the responsibilities of starting a new business are viewed as interruptions to one’s primary employment role; “venture-to-work” conflict. Venture-to-work conflict arises from the same interrole conflict sources previously described: time, strain, and behavioral. However, the sources of these conflict are viewed in reverse; arising from and attributed to new venture roles.

Time-based strains are likely the most obvious sources of venture-to-work conflict. Research suggests a plethora of critical activities that must be performed during the early stages of venturing which take up a great deal of a new entrepreneur’s time such as venture planning (Dimov, 2010), researching and completing legal requirements for a new business, seeking
venture financing, developing important networks, developing a product or service, and assembling key team members (Carter, Gartner, & Reynolds, 1996). Indeed, studies show that entrepreneurs who cannot sufficiently find enough time to devote to the many key startup activities are doomed to remain in the nascent stages of entrepreneurship forever or simply fail (Carter, et al., 1996). As such the likelihood of the time required for participation in these startup activities conflicting with time requirements in a wage-employment position is high. Hybrid entrepreneurs are confined to minimum hours of work in wage jobs. Therefore, the time necessary to complete important startup milestones likely requires time typically dedicated to employment responsibilities. As the time requirements associated with new ventures builds, performance in the employment role likely decreases and may result in negative feedback from supervisors. Research related to “moonlighting” or holding a second job highlights this negative relationship by demonstrating that the demands for one’s time in a secondary job limits one’s ability to perform in a primary job (Parham & Gordon, 2011). In fact, a recent study found that holding a second job intensified other interrole conflict such as between work and family (Boyd, Sliter, & Chatfield, 2015). Therefore, hybrid entrepreneurs likely attribute their inabilities to perform at work to the many time pressures arising from their new ventures.

Because of these time-based pressures in the new venture resulting in poor performance in employee roles, a new entrepreneur’s persistence to overcome venture obstacles may be weakened. Persistence in an entrepreneurial venture represents the continued efforts of entrepreneurs to engage in entrepreneurial action in the face of failure, challenges, and impediments (Gimeno, Folta, Cooper, & Woo, 1997). Entrepreneurial persistence is key to venture progress and growth and requires an individual to commit time and energies to the many challenges associated with new venture creation (Hatch and Zweig, 2000). Time is an inherent
factor in entrepreneurial persistence in that not only do new ventures require a great deal of time investment but an entrepreneur must be committed to meeting the challenges of venture creation over time (Wu, Mathews, Dagher, 2007). However, attributing conflict to the venture time constraints reduces an entrepreneur’s ability and motivation to engage these challenges and see through the obstacles. Likewise, time pressures leading to conflict may reduce an entrepreneur’s ability to engage in important innovative behaviors in the venture like bricolage. Bricolage in the venture represents an entrepreneur’s ability to combine existing and new resources into solutions in the face of new challenges (Baker & Nelson, 2005; Senyard, Baker, & Davidsson, 2009). In fact, bricolage and persistence are similar in that both take place in the face of unique challenges and obstacles and require time to invest overcoming challenges (Garud, & Karnøe, 2003).

Strain-based pressures from a new venture role to an employee role are equally as evident as time-based pressures. Scholars argue that self-employed persons are likely to experience a great deal of mental distress and fatigue based on the risky nature of entrepreneurial work (Boyd & Gumpert, 1983). Embarking on a self-employment journey is fraught with job uncertainty, income uncertainty, and high-levels of responsibility (Douglas & Shepherd, 2000) which can cause mental strain and negative emotions. Studies indicate that factors associated with self-employment are likely drivers of grief (Shepherd, 2003), frustration (Du Toit, 1980), and even loneliness (Akande, 1994). Given the autonomous and independent nature of entrepreneurial roles, it is likely that entrepreneurs attribute the negative emotions (Patzelt & Shepherd, 2009) and strain-based pressures to the venture as sources of conflict to their roles as employees.

When hybrid entrepreneurs attribute strain-based sources of conflict to the venture it may negatively affect their abilities to perform in their regular jobs. As a result, these new entrepreneurs likely experience decreased persistence and bricolage behaviors in their new
ventures. A great deal of mental fortitude is required to persist in preserving and protecting one’s goals (Locke, 2000) associated with new venturing. However, the strain-based pressures between venture and employment likely weaken this fortitude thereby negatively affecting the ability of an entrepreneur to “stubbornly” hold to their venture commitments (Baum & Locke, 2004, p.589).

Like work-to-venture conflict, the incompatible behavioral requirements of the venture are likely to conflict with those of the employee role. As mentioned previously, creativity and innovation are critical behavioral requirements in entrepreneurship (Hood & Young, 1993). At the same, time employers are increasingly demand creativity and innovative problem solving from employees (Yanadori & Cui, 2013). Thus, entrepreneurs may find it difficult to maintain their creative and proactive behavioral standards at work given the requirement to engage in bricolage in the venture to find solutions to the unique challenges facing their new ventures (Desa & Basu, 2013). When viewing the venture as the source of this innovative employee-entrepreneurial behavior inconsistency, entrepreneurs likely decrease their engagement in bricolage behaviors in the venture to satisfy the requirements of their employers for creative and innovative behavior for which they are compensated. Based on time, strain, and behavioral sources of conflict arising from the entrepreneurial roles, I hypothesize the following venture-to-work conflict main effect relationships:

Hypothesis 2: Increased venture to work conflict is negatively related to (a) persistence and (b) bricolage in the entrepreneurial venture role.

Work-Venture Centrality

Role centrality represents the degree of import a particular role holds in a person’s life (Paullay, Alliger, & Stone-Romero, 1994). Centrality is rooted in identity and social identity
theories such that individuals hold hierarchies of identities and hold some as more central or major than others which affect enactment of behaviors (Stryker & Serpe, 1994). As a consequent of one’s basic values, centrality of roles affects individual cognitions leading to enactment of attitudes and behaviors across situations and contexts (Rokeach, 1973). Various forms of centrality have received scholarly attention. For example, work centrality represents the value and importance of work in a person’s life (Mannheim, 1975; Paullay et al, 1994). High work centrality signifies identification with work roles and can lead to greater job satisfaction (Mannheim, Baruch, & Tal, 1997), job performance (Diefendorff, Brown, Kamin, & Lord, 2002), and commitment (Hirschfeld & Feild, 2000).

Scholars also draw on centrality to argue role importance relative to other roles in an individual’s life (Carlson & Kacmar, 2000). For example, high work centrality means that work is not only a central aspect in one’s life but that it may be of greater import than other life roles such as community or leisure (Twenge, Campbell, Hoffman, & Lance, 2010). Because centrality can be used to compare the relative importance between roles, research also suggests it may be an important factor in determining how roles conflict or enrich one another. For example, Carlson and Kacmar (2000) considered the importance of values associated with families relative to values associated with work. The study found that greater work-family conflict was experienced by respondents indicating a high level of work centrality. Building on these findings, Carr and colleagues (2008) developed and tested a measure of work-family centrality and tested its moderating role in the relationship between conflict and work attitudes and behavior. They found that the negative relationship between work-family role conflict and work attitudes was suppressed for individuals viewing work as being central to their lives.
These studies highlight the importance of role centrality in interrole dynamics. Because role centrality affects decision making and subsequent action and behavior (Paullay et al., 1994), an individual may choose “to focus on one domain and not the other” (Carlson & Kacmar, 2000, p. 1036). Thus, the source of conflict between roles is affected by the decisions to spend more time and exert more effort and energy in one role over another. For part-time entrepreneurs, the extent of conflict experienced between entrepreneurial and employee roles is likely affected by the degree of importance or value placed on either role. The previous sectioned discussed the passion that most entrepreneurs experience as they undertake new venture creation (Cardon, et al., 2013). Thus, new entrepreneurs may identify strongly with their roles as entrepreneurs creating even greater tension between the roles. However, it is quite possible that new entrepreneurs have yet to develop a sense of identity as an entrepreneur, seeing their ventures as mere hobbies and place greater importance on the work role. Viewing their roles as employees as central in their lives is likely to attenuate the negative effects that work-venture conflict has on job satisfaction and innovative behavior and the positive effects it has on turnover intentions. In line with source attribution arguments, people who view the entrepreneurial role as more central to their lives are more likely to attribute causes of conflict to work than those holding their employee roles as highly central and therefore experience reductions in the negative effects of venture-to-work conflict on persistence and bricolage in the entrepreneurial venture.

It is important to note that while roles can fluctuate in terms of their centrality in an individual’s hierarchy of roles, centrality is typically treated as static until one undergoes identity development and transition (Carlson & Kacmar, 2000; Michel, Kotrba, Mitchelson, Clark, & Baltes, 2011). As such, relative role centrality has been treated as static rather than dynamic as
other work/venture conflict and work/venture outcomes in the model. Based on these arguments I put forth the following hypotheses:

**Hypothesis 3:** Employee-work role centrality relative to entrepreneurial venture roles moderates the relationship between increased work to venture conflict and (a) job satisfaction, (b) innovative behavior, and (c) turnover intentions, such that these relationships are weaker when work centrality is high rather than low.

**Hypothesis 4:** Venture role centrality relative to employee work roles moderates the relationship between increased venture to work conflict and (a) persistence and (b) bricolage behavior in venture roles such that these relationships will be weaker when venture centrality is high rather than low.

**METHODOLOGY**

**Sample**

Given that hybrid entrepreneurs undergo a transition from employee to employee/entrepreneur, it was important to collect responses regarding conflict between work and venture roles, centrality, and work and venture outcomes during the nascent stage of the venture creation process while individuals are engaged in both regular employment and new entrepreneurial roles. As such, participants were recruited from an entrepreneurship and small business development center as part of a university wide initiative to support entrepreneurship at a large, public university in a Southeastern state in the U.S. Fifty-one individuals, who identified themselves as engaged in the early stages of venture creation while also maintaining full-time wage employment agreed to participate in the study. Each participant agreed to complete a time zero, baseline survey. Following the baseline survey, participants were sent a weekly text
message reminder to complete an online survey regarding their responses to questions related to the past week’s events. A weekly response is in line with previous ESM research techniques (Uy et al., 2015).

Nine people dropped out of the study before completing the baseline (intake) survey and eight more either failed to provide any consecutive weekly responses or sufficient responses to be included in the final sample. The final sample of 34 participants provided complete responses to at least two consecutive weeks of sampling with an average number of consecutive weekly responses of 16. The sample comprised of seven women and 27 men. Participants were involved in a variety of industries such as professional and technical services (32%), food and beverages (21%), manufacturing (19%), retail (15%), nonprofit (10%), and financial services (3%). The average age of participants was 31 years (21 to 57 range).

To account for changes in the focal variables over time, I utilized the repeated measure approach of Experience Sampling Method or ESM (Hektner, Schmidt, & Csikszentmihalyi, 2007). Following an orientation session, participants were asked to complete a baseline (time 0) survey by hand and responses were recorded. Using Qualtrics Survey software, each participant received a weekly SMS text prompt via cellphone which asked them to answer focal variable items within 24 hours of receipt. Prompts were sent for 17 consecutive weeks for a total of 18 collection time periods. In total, 756 prompts were sent (including baseline prompts) with 526 valid reports received; a 70% response rate.

Measures

Work-Venture conflict. The two types of work-venture conflict (work-to-venture and venture-to-work) were assessed by adapting existing (Carlson & Kacmar, 2000) work-family conflict scales by replacing family references with venture references. The final measure was
composed of eight items intended to evaluate the extent to which participants agreed that activities, responsibilities, and efforts in one’s employee role affected the demands an individual has within the entrepreneurial role and vice versa. Five items captured the work-to-venture interference and three items measured venture-to-work conflict on a seven point Likert type scale. Example venture-to-work item asks participants to what extent they agreed or disagreed that “this last week I have had to put off things I would like to do in my startup venture because of my other job.” And for venture-to-work conflict an example includes “This last week my new business often interfered with my other work responsibilities.” The alpha reliability coefficient for work-to-venture and venture-to-work conflict were .96 and .92 respectively.

**Work-Venture Centrality.** Building from the work in essay two regarding employee role salience via the view of the working role as a calling, career, or job, this study aims to more directly assess the value entrepreneurs place on their respective entrepreneurial and employee roles. Despite the usefulness of career views in demonstrating the importance of the employee role, it captures only one important side of the work to venture domain relationship. Like other measures of work-centrality (Paullay et al, 1994), the view of the employee role as calling, career, or job, does not take into consideration the relative value or importance of one role in comparison to another. Therefore, in this study **work centrality** and **venture centrality** measures scales were adapted from Carr et al.’s (2008) work-family centrality instrument. The focus of their scale is the relative importance of work versus family in an individual’s life with emphasis on “the degree to which one domain is dependent on the conditions that are being experienced in the other domain” (p. 249). Based on this approach, I structured eight centrality items which ask respondents to assess the extent to which they agree or disagree that the entrepreneurial role is more central to their lives than the employee role and vice versa (three items for work centrality,
5 items for venture centrality). For example, participants answered on a seven point Likert-type scale the degree to which they agreed or disagreed that “My role as an employee at my job is a greater part of who I am than my role as an entrepreneur” for work centrality. For venture centrality, an example includes “My role as an entrepreneur is more central to my existence than my role at my other job.” Reliabilities for Work centrality and Venture centrality were .87 and .86 respectively. This variable was measured was treated as a static variable and was only measured at time zero.

**Job satisfaction and turnover intentions.** These variables were assessed through routinely used, short form satisfaction and turnover intentions scales adapted slightly to account for weekly assessment (Colarelli, 1984; Hackman & Oldham, 1980; Saks, 2006; Van Dick, et al., 2004). These two scales measure the extent to which an individual was satisfied with their current, employee role and one’s intentions on leaving this role during the past week. Reliability for satisfaction was .97 while turnover intentions was .93.

**Innovative behavior at work.** Relying on the work in essay two, this study relies on an adapted, shortened measure of innovative behavior at work intended to capture the three stages of innovation (idea, promotion, and implementation). Individual innovative behavior is similar to, but distinct from, other types of discretionary behavior at work. For example, individuals with a proactive personality are described as agents of change, champions of ideas, and seekers of opportunities thereby improving their organizations (Siebert, Crant, Kraimer, 1999). While this personality trait certainly describes an individual’s attitude toward improvement, it does not go far enough in explaining individual innovative behavior inside the organization. Similarly, the personal innovativeness construct characterizes an individual’s willingness to experiment with
and adapt to new ideas and technologies but does not specifically account for activities taken on by the individual to innovate in their work tasks (Agarwal & Prasad, 1998).

Adapted from Jansen et al., (2006), I asked participants to what extent (seven point Likert-type scale) they agreed or disagree that in their regular, full-time jobs they engaged in a variety of innovative behaviors during the past week. While innovative behavior at work has also been captured through the assessments of others (peers, supervisors, etc.), this study shares the perspective of other scholars that because a major stage in innovation takes place in the mind of the innovator, peer judgements may not adequately capture the full range of innovative behavior in an employee (Janssen, 2000). Likewise, peers may not recognize the incremental innovations employees make in their individual work tasks and processes to become more effective and efficient as these changes may be “subtle” in nature (Janssen, 2000, p. 292). Scholars have also empirically demonstrated that “others-rated” workplace behaviors usually offer negligible incremental explanation over self-reported measures (Berry, Carpenter, & Barratt, 2012; Carpenter, Berry, & Houston, 2014). The measures from essay two have been slightly altered to better fit a sample of nascent entrepreneurs. For example, one item states “This last week, I regularly experimented with new ways of doing my work in ways that others did not.” The measure was composed of eight items, although two items were dropped from the analysis after poor fit during validity tests, with a reliability of .87.

**Entrepreneurial Persistence.** A six-item measure adapted from Baum and Locke’s (2004) entrepreneurial tenacity was used to assess the extent to which participants persisted in their venture efforts despite opposition (Cardon & Kirk, 2013). Two items related to life satisfaction garnered from venture participation and difficulty in fulfilling other obligations because of venture efforts, were dropped from the analysis based on overlap with conflict and
centrality measures. On a seven-point scale, respondents answered questions such as “this last week, I continued to work hard on my startup even when others opposed me.” Reliability for this measure was .86.

**Bricolage in the Venture.** Items in this measure were used to assess the extent to which individuals engaged in bricolage behaviors within their ventures during the past week. A six-item scale was adapted from a previously validated bricolage measure (Senyard et al., 2009) to reflect the weekly opportunities to utilize existing resources to solve problems. An example item includes “This last week I handled new startup challenges through a combination of existing and other inexpensive resources available to me.” Reliability for this measure was .96.

Individual demographic variables such as Age, Gender, and Education level were controlled for in the analysis to ensure validity of modelling results. Additionally, I controlled for the length of time an individual had been pursuing the venture.

**RESULTS**

Means, standard deviations, and correlations are presented in Table 1 with the average variance extracted in the diagonals. There appear to be few signs of multicollinearity given that all correlations are below .50 except for the correlation between job satisfaction and turnover intentions at -.65. Variance inflation scores were calculated with all scores below 4.70 suggesting multicollinearity is not an issue (Neter et al., 1996).

“*Insert Essay Three Table 1 Here*”

Based on the source attribution approach to interrole conflict (Shockley & Singla, 2011) two distinct models were hypothesized and tested concerning the two forms of conflict and associated outcome. As such, I conducted Confirmatory Factory Analysis (CFA) using the Lavaan package in R software (version 3.2.3) on the constructs for each separate model. CFA with work-
to-venture conflict, work centrality, job satisfaction, innovative behavior at work, and turnover intentions shows that the model fit the data well, ($\chi^2 = 520.37$, $df = 160$, $p < .01$; CFI = .96, TLI = .95 GFI = .91, RMSEA = .06). It also showed standardized loading values ranging from .64 to .96 and that all of the loadings were significant at $p < .01$ indicating convergent validity. I compared the hypothesized model to several alternative models such as letting centrality and conflict load together and including constructs from the venture-to-work conflict model into the factor structures. The alternative models all yielded poorer fits and the hypothesized model was significantly ($p < 0.05$) different than each alternative which is consistent with the source-attribution theoretical approach. To ensure discriminant validity, I compared the AVE’s of each construct to the squared correlations between corresponding pairs of constructs and in each case, AVE’s were greater (Fornell & Larker, 1981). Convergent validity of the constructs is supported by significant factor loadings for all constructs above 0.80 and the magnitude of all AVE’s greater than 0.60 (Bagozzi & Yi, 1988).

The venture-to-work conflict model constructs were then entered into a separate CFA which also yielded good fit ($\chi^2 = 519.35$, $df = 129$, $p < .01$; CFI = .95, TLI = .94 GFI = .90, RMSEA = .07). All factor loadings were significant at $p < .01$ ranging from .67 to .93 supporting convergent validity for this model as well. Again, I tested several alternative models such as allowing centrality and conflict to load together as well as persistence and bricolage. I also tested models with items from the work-to-venture conflict model to ensure distinction among the similar constructs. No alternative model demonstrated significantly better fit and difference tests between the Chi Squared values for hypothesized model and each alternative were significant at $p < 0.5$.

Based on the nested nature of the data (responses over 18 time periods for each individual respondent), I relied on random coefficients modelling (RCM), a form of hierarchical linear
modelling, to test each hypothesis in different models. RCM has been proven to be a powerful analytical technique to assess mixed models where individual responses are represented over time (Foo, Uy, Baron, 2009). In order to justify the aggregation of responses over time to the individual and the use of RCM, intraclass correlations (ICC’s) were calculated for each ESM variable. ICC1’s ranged from .12 to .67 and ICC2’s from .66 to .96 indicating that there are negligible degrees of nonindependence and in most cases a great deal of agreement in individual responses. For each model tested, all predictor variables were grand mean centered rather than individual mean centered in order to reduce multicollinearity and because of the absence of any cross-level interaction terms (Snijder & Bosker, 1999). The NLME command package in R (version 2.3.2) was used to run each random coefficient regression model.

Tables 2 shows the results of work-to-venture conflict hypothesis testing and Table 3 shows the results of venture-to-work conflict relationship tests. To account for the results over time, I incorporated weekly time lagged effects between predictors and outcomes by pairing predictor variables with criterion variables for the following week. For example, Time 1 outcomes variables were regressed on Time 0 predictor variables. Longitudinal data are also highly sensitive to issues of autocorrelation in that the assumption of residual independence is violated. To alleviate the effects of autocorrelation in the models, I lagged dependent variables (Judge & Ilies, 2004) and controlled for the baseline criterion variables (Time 0) in each model (Foo, Uy, & Baron, 2009). After making these changes to model specifications, I tested the final model for each dependent variable against autocorrelated models (Bliese & Ployhart, 2002) and found no statistical differences among the models suggesting autocorrelation is not a concern.

“Insert Essay Three Table 2 Here”

“Insert Essay Three Table 3 Here”
Per standard multilevel modelling technique, the first model of each regression is the null model in which predictors are left out of regression equations to determine between-individual variances in each dependent variable. Results of these null models are not included in the presented tables but each demonstrated significant \( p < .05 \) variance among individuals. Hypothesis 1 (H1) describes the relationship between work-to-venture conflict and outcomes in the employee work role (job satisfaction, innovative behavior, and turnover intentions). Model 1 in Table 2 under “Job Satisfaction” supports the predicted negative relationship in H1a \( (\beta = -.19, p < .05) \). H1b, that work-to-venture conflict is negatively related to innovative behavior is not supported. However, there is evidence in Model 1 (Table 2) under “Turnover Intentions” supporting the hypothesized (H1c) positive relationship between conflict and intentions to quit one’s current full-time employment \( (\beta = .21, p < .01) \).

Hypothesis 2 describes the other side of the work-conflict relationship; venture-to-work conflict and predicts negative effects on weekly venture efforts and behaviors such as persistence and bricolage. Model 1 of Table 3 under “Venture Persistence” fails to garner support for H2a. Despite a statistically significant finding \( (\beta = .11, p < .01) \), the nature of the relationship is shown as positive. Although this is a somewhat surprising finding, it may align well with the very definition of entrepreneurial persistence; venture effort in the face of opposition (Holland & Shepherd, 2013) such as potential conflict with other life roles. I will elaborate on this finding in greater depth in the Discussion section. H2b suggests a negative relationship between venture-to-work conflict and weekly bricolage behaviors in the venture. This hypothesis is supported in Model 1 of Table 3 under “Bricolage in the Venture” \( (\beta = -.09, p < .01) \).

The next set of hypotheses describe the moderating influence of relative work and venture centrality on the conflict-to-outcomes relationships. Employee work role centrality relative to the
venture role has a significant effect (Model 2, Table 3 under “Job Satisfaction”) on the relationship between work-to-venture conflict and job satisfaction ($\beta = .05, p < .05$). The graph of this effect supports H3a in demonstrating that when work centrality is high, the negative relationship between conflict and satisfaction is attenuated (See Figure 2). In fact, the influence of centrality is so great that when centrality is high, the relationship between conflict and satisfaction is positive. H3b is not supported as the coefficient for the interaction effect of work centrality on the relationship between conflict and innovative behavior is not significant (Model 2, Table 3). Work centrality does have a significant moderating effect on the relationship between work-to-venture conflict and turnover intentions ($\beta = -.05, p < .05$) as seen in Model 2 of Table 3 under “Turnover Intentions.” Graphical representation (Figure 3) of this relationship offers additional support for H3c as high work centrality changes the nature of the relationship from positive to negative such that despite experiencing conflict, if one is committed to the employee role, turnover intentions decline.

"Insert Essay Three Figure 2 Here"

"Insert Essay Three Figure 3 Here"

The final set of hypotheses speak to the moderating influence of venture role centrality on the relationships between venture-to-work conflict and venture outcomes. H4a suggests that venture centrality will attenuate the negative relationship between conflict and persistence. While the coefficient is significant ($\beta = .04, p < .01$) (Model 2, Table 3 under “Venture Persistence”) the graph (Figure 4) of the relationship shows that centrality simply strengthens the already positive relationship between conflict and persistence. As previously stated, I will discuss this finding in greater depth in the Discussion section. H4b is supported in Model 2 of Table 3 under “Bricolage in the Venture” ($\beta = .03, p < .05$). Figure 5 further supports this finding in depicting increased bricolage behavior in the venture from conflict when venture centrality is high.
DISCUSSION

The purpose of this study was to shed light on a potentially important source of interrole conflict for employees which has not been paid adequate attention in organizational behavior or entrepreneurship fields of research. Given that most entrepreneurs emerge from organization employment in a staged, transitional approach (Raffiee & Feng, 2014), there exists a great deal of potential for new entrepreneurial roles and employee roles to conflict given the demands of these potentially competing roles. It was my intention to describe this conflict and some associated outcomes within each role. I based my arguments on, and found evidence supporting, a source-attribution perspective for work-venture conflict. Based on a sample of 34 entrepreneurs in the nascent stages of venture formation, I found evidence that employee work roles can conflict with entrepreneurial roles resulting in declines in job satisfaction and increases in turnover intentions over time. Likewise, I found support for arguments that a new entrepreneurial venture role can interfere with one’s employee role responsibilities which may spawn reduced bricolage behaviors within new ventures. These are critical findings given that many employees engage in side business ventures while remaining employed (Folta et al, 2010).

Despite the negative impacts owing to conflict between work and venture roles, I also argued that the degree of import with which an individual holds a given role, relative to the other, can significantly reduce these negative effects—even making them positive in some cases. I found that when people regarded their employee work roles as more highly important, more so than venture roles, they experienced more positive conflict to satisfaction relationships and reductions in turnover intentions. In terms of venture outcomes, I found that when new
entrepreneurs held their new venture roles as more central to their lives than employee roles, they engaged in greater bricolage behaviors despite high levels of conflict. These findings speak to the importance of identity and role centrality in theorizing and managing employee conflicts.

Contrary to my hypothesis, venture-to-work conflict did not negatively affect an entrepreneur’s persistence in a new venture. Rather, results indicated a positive relationship between conflict and entrepreneurial persistence. As mentioned previously, this may be due to what we know about entrepreneurs, especially those in the nascent stages of venturing, and their passion and persistence to succeed despite steep obstacles (Shane, Locke, & Collins, 2003). In this case, even though entrepreneurs may have recognized that their ventures were interfering with their lives as employees, they persisted in their venture effort to progress. Again, this likely speaks to the effects of entrepreneurial passion (Cardon et al., 2013), but may also speak to overconfidence biases as well (Forbes, 2005). It is possible that new entrepreneurs recognize the interruptions their new ventures are having in their regular working roles but simply chose not to attend to such issues as they are confident they can adequately manage responsibilities and requirements in both domains and see no need for slowing up progress in their ventures. These positive effects were only strengthened when entrepreneurs viewed their venture roles as more important than their employee roles.

Contributions and Future Research

This study makes several important contributions to the field of entrepreneurship as well as to organizational behavior. Although part-time entrepreneurship and hybrid entrepreneurial entry are common in practice (Burke, et al 2008; Shane, 2012), few studies have focused on the unique challenges that these entrepreneurs face. Therefore, this study contributes to entrepreneurial theory not only by shedding light on common forms of entrepreneurial entry
(part-time/hybrid) but also through the indication of additional constraints an entrepreneur might face in the venture formation process. Likewise, the proposition of work-venture centrality contributes to the work on entrepreneurial identity and passion and the import role these constructs play in influencing entrepreneurial behavior.

For organizational behaviorists, this paper participates in calls for greater understanding and theorizing regarding the multiple roles in which employees are engaged and how they interact to impact attitudes and behaviors at work (Wilson & Baumann, 2015). While interrole dynamics research has mainly be confined to studying the relationships between work and family domains (Greenhaus & Powell, 1985), this study extends this work to the important domain of entrepreneurship. By studying the impact of engaging in entrepreneurship outside of work, I suggest new sources of potential negative spillover to employee roles. Because time outside of work is normally considered to be a time of recovery or rejuvenation for employees (Sonnentag, 2003), studying part-time entrepreneurship might describe a far different picture in which employees face new sets of stresses and problems hindering potential for recovery necessary for high performance at work. However, because part-time entrepreneurship is quite prevalent, scholars and managers must better understand these role relationships, and the sources and results of their potential conflict.

Future research in this arena might consider other outcomes of part-time entrepreneurialemployee role conflict such employee willingness to engage in greater discretionary helping behaviors (OCB’s), employee engagement and involvement in their employee roles, and identification and commitment to the organization. Like other interrole conflict research, future studies should consider how organizational policies and procedures might attenuate the negative impacts of this type of conflict on work outcomes. For example, perhaps greater outlets for
employee innovation at work (Schuler, 1986) might create the space needed by individuals to act entrepreneurially but with a focus on organizational outcomes.

Limitations

There are several limitations associated with this study that should be noted. First, all outcome variables were self-reported. While there is an argument that each of these outcomes are known best to the individual respondent, there is also an argument regarding the objectivity of these measures. Future research would be well-served to triangulate variables with the responses from others (regarding employee outcomes) and more objective data to measure persistence and bricolage. However, other repeated measures approaches have demonstrated that issues of common method variance inherent in self-reported items is weakened over time, especially in studies of interrole dynamics (Foo et al., 2009; Williams & Alliger, 1994). My lagging of the dependent variables also helps to alleviate concerns for common methods bias as does the inclusion of a latent common factor in the CFA and the identification of significant interaction terms (De Clercq et al., 2013; Podsakoff et al., 2012).

Because of the relatively small number of participants in this study, generalizability of these results is also a concern. This presents a unique opportunity for future research to replicate these results on a larger scale with part-time entrepreneurs from a variety of geographical contexts. Another concern regarding the sample is the number of data collection points and the time between each collection. While a short-term, week to week (Uy, Foo, & Ilies, 2015) and even day to day approach (Foo et al., 2009) has proven valid in measuring these related outcomes, the nascent stage of entrepreneurship is undefined in terms of time. Certainly, measuring the employee and entrepreneurial role effects over a longer time span would be valuable to identifying the true
impact of running a side business. However, because I was more interested in the impacts of changes in conflict on each outcome, a shorter-term approach seemed more valuable.

CONCLUSION

The research findings presented in this essay bring to light an important type of interrole conflict that has not previously been explored in entrepreneurship or organizational behavior research. However, given that many employees often engage in entrepreneurial venturing outside of their regular wage-employment jobs, understanding the effects of work and entrepreneurial venture roles conflicting on employee and venture roles outcomes of considerable import. As such, I introduced work-to-venture conflict which has negative effects on employee role outcomes and venture-to-work conflict which has negative effects on venture role outcomes.
<table>
<thead>
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<th>Variable</th>
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<th>3</th>
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<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<td>6. Innovation at Work</td>
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<td>7. Turnover Intentions</td>
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<td>8. Venture Persistence</td>
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Note. N = 34. 526 data points. *p < .10  *p < .05  **p < .01 (two-tailed).
## Essay Three Table 2. Multilevel Regression Results: Work-to-Venture Conflict and Work Outcomes

<table>
<thead>
<tr>
<th>Variables</th>
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<th>Turnover Intentions</th>
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<td></td>
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<tr>
<td></td>
<td>Predictor Only)</td>
<td>Interaction)</td>
<td>Predictor Only)</td>
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<td>-610.20</td>
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*Note.* Coefficients are unstandardized. All predictors were mean-centered and lagged to analyze the effects over time. 

$N = 34$. 526 data points. ‘*’ $p < .10$ ‘$p < .05$ **’ $p < .01$. Gender is coded 0 = Male, 1 = Female.
Essay Three Table 3. Venture-to-Work Conflict and Venture Outcomes

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*Note.* Coefficients are unstandardized. All predictors were mean-centered and lagged to analyze the effects over time.  
$N = 34$. 526 data points.  * $p < .10$  ** $p < .05$  *** $p < .01$ Gender is coded 0 = Male, 1 = Female
Essay Three Figure 1. Work-Venture Conflict

Essay Three Figure 2. Moderating effect of Work Centrality on the relationship between Work-to-Venture Conflict and Job Satisfaction
Essay Three Figure 3. Moderating effect of Work Centrality on the relationship between Work-to-Venture Conflict and Turnover Intentions

Essay Three Figure 4. Moderating effect of Venture Centrality on the relationship between Venture-to-Work Conflict and Venture Persistence
Essay Three Figure 5. Moderating effect of Venture Centrality on the relationship between Venture-to-Work Conflict and Bricolage in the Venture
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Bliese, P. D. (2000). *Within-group agreement, non-independence, and reliability: implications for data aggregation and analysis.* In K. J. Klein, & S. W. J. Kozlowski (Eds.), Multi-


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Davis, W. D. & Dibrell, C. Unpublished measure of social capital

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APPENDIX
Essay Two Study Measures

A. Extent of engagement of part-time entrepreneurship

Please indicate the extent to which you engage in the following activities outside of your role as a full-time employee *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

Involvement in charitable organizations*
Involvement in founding an entrepreneurial business
Involvement in local government – e.g. Chamber of Commerce, Advisory Board*
Involvement in activities at home with family or friends*
Involvement running a side business
Involvement in civic organizations or clubs*
Involvement in self-employment
Involvement in sports or recreational events*
Involvement in managing a for-profit or not-for-profit venture
Involvement in activities related to my primary job*
Involvement in starting and running a part-time business
*Indicates a distractor item

B. Individual innovative behavior in the employee role

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

In my primary full-time job:

Explore
I often try to expand the services I offer customers/constituents through new offerings
I regularly experiment with new ways of doing my work in ways that others do not
I often accept and fulfill demands from managers and constituents that go beyond my normal services
I generate new, creative ideas for accomplishing work tasks
I promote and champion new ideas to others
I seek out new technologies, processes, and techniques to improve how work is accomplished

Exploit
I often make small adaptations to my processes in order to be more efficient and effective
I try to create synergies between my work and that of my coworkers
I often adapt my processes to better suit the needs of the constituents/customers
I frequently analyze the processes associated with my work tasks to find ways of making incremental improvements
I believe that small changes in the way things are done can have major impacts
I often look at what others are doing well and adopt and modify their approaches to my own work
C. Goal orientation

Please indicate the degree to which you agree with the following statements:
*Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree
(5) agree (6) strongly agree (7) very strongly agree

Learning
I am willing to engage in work that I can learn a lot from
I often look for opportunities to develop new skills and knowledge
I enjoy challenging and difficult tasks where I’ll learn new skills
For me, development of my work ability is important enough to take risks
I prefer to work in situations that require a high level of ability and talent

Proving
I like to show that I can perform better than others
I try to figure out what it takes to prove my ability to others
I enjoy it when others are aware of how well I am doing
I prefer to work on projects where I can prove my ability to others

Avoiding
I would avoid taking on a new task if there was a chance I would appear rather incompetent to others
Avoiding a show of low ability is more important to me than learning a new skill
I’m concerned about taking on a task at work if my performance would reveal that I had low ability
I prefer to avoid situations at work where I might perform poorly.

D. Employee role orientation (Job, Career, Calling)

Please indicate on a scale from 0-3 to what degree the following descriptions match who you are.

Mr. A works primarily to earn enough money to support his life outside of his job. If he was financially secure, he would no longer continue with his current line of work, but would really rather do something else instead. Mr. A’s job is basically a necessity of life, a lot like breathing or sleeping. He often wishes the time would pass more quickly at work. He greatly anticipates weekends and vacations. If Mr. A lived his life over again, he probably would not go into the same line of work. He would not encourage his friends and children to enter his line of work. Mr. A is very eager to retire.

Mr. B basically enjoys his work, but does not expect to be in his current job five years from now. Instead, he plans to move on to a better, higher level job. He has several goals for his future pertaining to the positions he would eventually like to hold. Sometimes his work seems a waste of time, but he knows that he must do sufficiently well in his current position in order to move on. Mr. B can’t wait to get a promotion. For him, a promotion means recognition of his good work, and is a sign of his success in competition with his coworkers.
Mr. C’s work is one of the most important parts of his life. He is very pleased that he is in this line of work. Because what he does for a living is a vital part of who he is, it is one of the first things he tells people about himself. He tends to take his work home with him and on vacations, too. The majority of his friends are from his place of employment, and he belongs to several organizations and clubs relating to his work. Mr. C feels good about his work because he loves it, and because he thinks it makes the world a better place. He would encourage his friends and children to enter his line of work. Mr. C would be pretty upset if he was forced to stop working, and he is not particularly looking forward to retirement.

E. Work-unit climate for innovation

Please indicate the degree to which you agree with the following statements:
*Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

My work unit emphasizes and rewards innovation in problem solving
The employees that I work with often use innovative solutions in solving problems
Employees in my work unit are innovative
Employees in my work unit encourage others to explore new ideas and try new ways of doing things
My work unit emphasizes sharing new ideas and solutions with others
Managers in my work unit regularly solicit ideas from employees for improving the work

Essay Three Study Measures

F. Work-venture conflict

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

This past week…

Work-to-Venture Conflict
My employment often interferes with my entrepreneurial venture pursuits
I have had to put off things I would like to do in my new business because of my current job
My current job kept me from fulfilling my desires to run my own new business
Work in my current job took up time I’d like to spend working on my new venture idea
My new business opportunity has not progress as far along as I would like due to my current employment responsibilities.

Venture-to-Work Conflict
I spent too much time thinking and working on my new business such that I failed to fulfill the requirements of my current job
I am not as committed to my current work role because of the time I spend working on my entrepreneurial pursuits

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Trying to start a new business interferes with my current work responsibilities

G. Work-Venture centrality

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

Work centrality
The activities in my full-time employment are more important than my entrepreneurial pursuits. My role as an employee is a greater part of who I am than my engagement in entrepreneurship. I get more mentally absorbed in my work as an employee than in my work as an entrepreneur.

Venture Centrality
My career goals are oriented more towards success in my new venture opportunity than on success in my primary job. The most important things that happen to me involve my work within my entrepreneurial venture rather than in my primary organizational job. Overall, I consider entrepreneurship more central to my career than employment within an existing organization. Overall, my role as an entrepreneur is more central to my existence than my role as an employee. I find myself devoting more and more time and energy to my entrepreneurial pursuits than to my organizational career pursuits.

H. Innovative behavior at work

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

This week in my primary full-time job:
I regularly experimented with new ways of doing my work in ways that others did not
I often accepted and fulfilled demands from managers and constituents that went beyond my normal services
I generated new, creative ideas for accomplishing work tasks
I promoted and championed new ideas to others
I sought out new technologies, processes, and techniques to improve how work is accomplished
I often made small adaptations to my work processes in order to be more efficient and effective
I often adapted my processes to better suit the needs of the constituents/customers
I frequently analyzed the processes associated with my work tasks to find ways of making incremental improvements
I. Job Satisfaction and Turnover Intentions

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

This week in general, I have been satisfied with my current job (full-time employment)
This week, my other job has been very enjoyable
All in all, my other job has been great this week
I am planning to leave my current job next week
I would like to quit my current job next week
I often thought about quitting my current job this week

J. Entrepreneurial Persistence

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

This last week:
I continued to work hard on my startup even when others opposed me
I can think of many times when I persisted with my startup when others would have quit
No matter how challenging my startup has been, I did not give up
I frequently had to tear myself away from my startup to satisfy other obligations
I derived most of my life satisfaction from my new startup
I have worked hard than most people I know

K. Bricolage in the venture

Please indicate the degree to which you agree with the following statements: *Score (1) very strongly disagree (2) strongly disagree (3) disagree (4) neither agree nor disagree (5) agree (6) strongly agree (7) very strongly agree

This last week:
I have had to find workable solution to new challenges for my startup by using my existing resources
I used existing startup resources to handle a new problem or opportunity
I handled new startup challenges through a combination of existing and other inexpensive resources available to me
I took action to address a startup problem or opportunity by assuming that there was a workable solution
I put together a workable solution to a problem or opportunity from my existing startup resources
I combined startup resources in a new way to overcome a challenge
CURRICULUM VITAE

EDUCATION

University of Mississippi – College of Business Administration, University, MS
Ph.D., Management (2017)

Syracuse University – Whitman School of Management, Syracuse, NY
Master of Business Administration (2012)

Syracuse University – Maxwell School of Citizenship and Public Affairs, Syracuse, NY
Executive Master of Public Administration (2012)
Certificate of Advanced Study: International and Non-Government Organizations
(2012)

Weber State University – Goddard School of Business and Economics
Bachelor of Science in Finance (2007)

REFEREED ARTICLE PUBLICATIONS

Markin, E., Swab, G., & Marshall, D. R. (Forthcoming). Who is driving the bus? An analysis of author and institution contributions to entrepreneurship research. *Journal of Innovation and Knowledge*


BOOK CHAPTERS


CONFERENCE PRESENTATIONS


boundaryless career views on entrepreneurial intentions. *Southern Management Association Annual Meeting*, Charlotte, NC.


**Marshall, D. R.** (2016). Dissertation Essay One: Two sides to every story: Exploring the innovative behavioral spillover from part-time entrepreneurs to their primary jobs *Mid-South Management Research Consortium*, Mississippi State University, Starkville, MS.


**Marshall, D. R.** (2016). My next career move…entrepreneurship! Conceptualizing the effects of career views on entrepreneurial intentions. *Western Academy of Management Annual Conference*, Portland, OR. *Nominated for Best Student Paper Award*


### TEACHING

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<td>Family Business Management (Management 486)</td>
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### PROFESSIONAL AFFILIATIONS & SERVICE

**Member:** Academy of Management, Southern Management Association, Western Academy of Management, Beta Gamma Sigma Honors Society

**Judge:** Annual University of Mississippi Gillespie Business Plan Competition

**Webinar Coordinator:** Communications Committee of AOM Entrepreneurship Division. Worked closely with fellow committee members in coordinating and carrying out online video discussions connecting students, faculty, and practitioners with leading entrepreneurship scholars Saras Sarasvathy, Michael Hitt, Dean Shepherd, Cristina Cruz, and Kimberly Eddleston

**Guest Participant:** The Mississippi Angel Network through Innovate Mississippi


**Guest Speaker:** Mississippi Water Security Institute Workshop (2016) – Worked with participants to aid in development of entrepreneurial, innovative solutions to water security issues in Mississippi.

**Assistant Thesis Advisor:** Assisted in advising undergraduate finance student, Madison Portie, with her honors college thesis on identity and entrepreneurship of black women in Mississippi Businesses.