

I'm New Here, Let's Work Together: Proactive Collaboration and Creative Performance
during Organizational Entry

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Abstract

Employee creativity is arguably the foundation upon which successful organizational innovation rests. Little is known, however, about how the creative process begins in organizations and how new employees' socialization influences their creative development. Using two studies, I developed and tested a social process model of new employee creativity in which *proactive collaboration* – taking initiative to engage with others in collective work – plays a key role in the creative process. In Study 1, I developed and validated a measure of proactive collaboration. In Study 2, I tested the proposed model using a time-lagged, survey-based field study of new employees and their supervisors over the first six months of employment. I found that newcomer proactive collaboration was positively associated with engagement in creative process behaviors (e.g., problem identification, information search, and idea generation); however, creative process engagement was not related to supervisors' evaluations of newcomer creative performance. I also found that newcomers' proactive collaboration was contingent upon both personal characteristics and the organizational socialization context. On average, newcomer curiosity was positively associated with proactive collaboration. Newcomers' creative identities, formed from prior work experiences, interacted with the organizational socialization context to predict proactive collaboration: Newcomers with strong creative identities from prior jobs were more likely to proactively collaborate when the organization used divestiture, rather than investiture, socialization tactics. Due to ongoing data collection, please contact the author before citing this work.

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Chapter 1: Introduction

When it comes to explaining how creativity works, contradictions abound. Sometimes creativity is portrayed as a fairly straightforward and tractable process, with Apple founder Steve Jobs noting that creativity was “just” connecting ideas (Wolf, 1996) and writer Jack London admonishing, “Don’t loaf and invite inspiration; light out after it with a club” (Reeve, 1905). In other instances, creativity is depicted as a phenomenon steeped in mystery, difficult to define, and not fully under the control of the creator. The writer Ray Bradbury, for example, invokes the idea that the creative process is directed by an otherworldly *muse* that only intermittently bestows ideas upon the creator, noting that he is “not in control...My muse does all the work.” (Rogers, 2002). Of course, organizational creativity researchers tend to be a bit more pragmatic, choosing to conduct research rather than chase muses. And yet, although research on employee creativity has flourished in recent years, the origins and nature of the creative process, i.e., “the sequence of thoughts and actions that leads to a novel, adaptive production” (Lubart, 2001, p. 295), is still poorly understood (Gilson & Shalley, 2004; Shalley, Zhou, & Oldham, 2004).

Emerging research on new employee creativity highlights an opportunity to better elucidate how creativity develops in organizations. When people start new jobs, they move through a process known as socialization, which involves learning how to fulfill work requirements, build relationships, and understand the organization’s culture (Van Maanen & Schein, 1979). The socialization process is a formative transition period, shaping future work behaviors and attitudes (Bauer, Bodner, Erdogan, Truxillo, &

Tucker, 2007; Kammeyer-Mueller & Wanberg, 2003), and research suggests that entry experiences are also associated with employees' *creative performance*¹, the production of new and potentially valuable ideas (Amabile, 1996; Harris, Li, Boswell, Zhang, & Xie, 2014; Kammeyer-Mueller, Livingston, & Liao, 2011). To date, however, the landscape of newcomer creativity research remains sparsely populated, thus signaling a need for more theoretical development.

For example, researchers have identified collaboration, i.e., participative interactions between two or more people with the goal of solving a problem or progressing on a task (Baer, Leenders, Oldham, & Vadera, 2010; Hargadon & Bechky, 2006; Paulus, Dzindolet, & Kohn, 2012), as potentially important for creativity. Although collaboration is typically studied in relation to group-level creative performance, a growing body of work suggests that these work-related interpersonal exchanges may be important for individual creativity as well (e.g., Elsbach & Flynn, 2013). People pursuing creative work often acknowledge the “world of networks and relations, of knowing others” (Glăveanu & Lubart, 2014, p. 43) that surrounds and influences them. Indeed, the static image of the lone creator – the creative *genius* – operating in a social vacuum (Glăveanu, 2011) is increasingly being replaced with a more complex picture of creativity enacted within a dynamic system (Amabile, 1996; Csikszentmihalyi, 1996; Perry-Smith, 2006); or, as described by musician Brian Eno, a *scenius* of collaborators, influencers, and thinkers (c.f., Kleon, 2014).

¹ For clarity's sake, I use the term *creative performance* when referring to creativity as an outcome (e.g., Amabile, 1996; de Stobbeleir, Ashford, & Buyens, 2011). I use *creativity* to refer to the entire system of creative process and creative performance, thus aligning with Amabile and Mueller's (2008) use of the term to denote “a process resulting in a (novel and valuable) product” [35].

Collaboration, then, may play a key role in employees' creative performance, and may be particularly important for new employee creativity. Although understudied in organizational socialization research, social interactions between new employees and organizational insiders are increasingly recognized as critical during the first months of employment (Kammeyer-Mueller & Wanberg, 2003; Wanberg & Choi, 2012). As I describe in detail later, collaboration during organizational entry is a multifaceted social experience that offers unique opportunities for new employees to develop creative ideas. Examining the extent to which newcomers involve themselves in collaborative exchanges could provide better understanding as to how and why employees develop into creative contributors in their organizations. Currently, however, this perspective is missing from the newcomer creativity literature, leaving unanswered questions and an opportunity to build new theory about creativity's origins in the workplace.

In this dissertation, I develop a social process model of creativity that unfolds over the first months of employment (see Figure 1). I introduce *proactive collaboration* – taking initiative to engage with others in collective work – as a previously overlooked form of proactivity and a key mechanism through which the creative process may be triggered in newcomers. The idea that newcomers initiate and direct their own behavior to facilitate their adjustment has been of significant interest to socialization theory and research (Ashford & Black, 1996; Ashforth, Sluss, & Saks, 2007; Wanberg & Kammeyer-Mueller, 2000); following this perspective, I argue that newcomers' proactive collaboration is important for their creative performance. I integrate prior work on newcomer proactivity with classic creativity theory (Amabile, 1996) to propose that

proactive collaboration exposes newcomers to more diverse information and ideas than would be possible when working alone, and also provides opportunities for them to share and clarify their own preliminary ideas and prior experiences. That is, collaborating with insiders ignites newcomers' creative thinking and, ultimately, enhances their creative performance.

My proposed social process model of creativity during organizational entry examines newcomer-focused antecedents of the creative process as well as the interactive effects of the organizational socialization context. I focus on two newcomer individual differences that are theoretically relevant for creative performance during work role transitions: *Curiosity*, the desire to explore and understand one's environment (Berlyne, 1954, 1966; Litman, 2008), and *creative role identity*, one's self-concept as a creative contributor in a work role (Farmer, Tierney, & Kung-Mcintyre, 2003). I examine how the relationships between these newcomer characteristics and their creative behaviors may be contingent upon the socialization experiences provided by organizations (Jones, 1986; Van Maanen & Schein, 1979), as well as how the socialization context might alter the course of the creative process as it unfolds over the first months of employment. I test the model using two studies: In Study 1, I develop and validate a proactive collaboration scale; in Study 2, I test the full hypothesized model by conducting a time-lagged field study of organizational newcomers and their supervisors.

This study makes significant contributions to both organizational socialization and creativity research. By introducing a previously unstudied form of newcomer proactivity – proactive collaboration – this study offers a fresh look at how newcomers

attempt to connect with organizational insiders during socialization and adds new theory to the proactivity literature. Prior research has examined social forms of newcomer proactivity, such as relationship building, that broadly reflect the extent to which newcomers socialize and get to know their supervisors and co-workers (e.g., Ashford & Black, 1996); this work suggests that social support mechanisms are key to facilitating newcomer adjustment and performance. Although this research has provided valuable insights into how newcomers come to feel socially accepted, adding a more specific and work-focused form of social proactivity to the literature highlights an opportunity to examine new mechanisms through which newcomer creative performance might be triggered.

Further, the exchange-based nature of proactive collaboration presents an alternative view of newcomers that is currently missing from the literature. New employees are typically portrayed as blank slates during the socialization process (Beyer & Hannah, 2002), as behaving proactively in order to receive the things they need to adjust (e.g., knowledge, support). In reality, however, new employees are in a good position to give as well; new hires are often brought on board so that they might introduce fresh ideas and perspectives into the organization (Harris et al., 2014). Extant categorizations of newcomer proactivity, however, are insufficient to examine the extent to which newcomers exchange with organizational insiders, thus creating a context in which new ideas and knowledge can be integrated with what newcomers already possess and bring with them to the new role. Because creative ideas often arise at the intersection of existing knowledge and new experience (Audia & Goncalo, 2007), this exchange

process is particularly important to capture when examining how creativity emerges in organizations.

Finally, this study answers calls for more research grounded in interactionist models of creativity and organizational socialization (Griffin, Colella, & Goparaju, 2000; Woodman, Sawyer, & Griffin, 1993) by examining the joint influence of individual differences and the socialization context on the creative process. Although the idea that behavior is a function of both personal and contextual factors is foundational to the study of behavior in organizations, this perspective has been absent from many models of newcomer socialization (Griffin et al., 2000) and the broader creativity literature (George, 2007). In this study, I position newcomer individual differences as the focal antecedents that trigger the creative process and then examine how the socialization context influences that process. This perspective is important because it aligns with theory positioning newcomers as playing a pivotal role in shaping their own socialization (Cooper-Thomas, Paterson, Stadler, & Saks, 2014) while also challenging the aforementioned blank slate view of newcomers that many studies have presented. In contrast to much of this prior work, this study portrays newcomers as individuals with histories. That is, I depict newcomers as bringing *themselves* into their new roles – people with personalities, experiences, and established identities – and by doing so seek to more clearly identify the role newcomers play in introducing creative ideas into their organizations.

In the literature review and proposed theoretical framework that follows in Chapters 2 and 3, I describe the current state of research on newcomer creative

performance and newcomer proactivity. Next, I introduce proactive collaboration as a work-oriented form of newcomer proactivity. I integrate theory and research on collaboration and individual-level creativity to propose that newcomer proactive collaboration facilitates creative performance by triggering creative thinking processes. Drawing on interactionist theories of creativity and organizational socialization, I posit that some newcomers will be more likely to initiate collaborations than others and introduce contingencies in the form of socialization-specific contextual factors. In Chapters 4 and 5, I present the methods and results of Study 1 and Study 2, respectively. In Chapter 6, I close with a discussion of the study contributions, practical implications, and limitations, as well as ideas for future research directions stemming from this work.

Chapter 2: Literature Review

I. Existing Research on Newcomer Creativity

Research on newcomers' creative performance is currently in an emergent state. Perhaps the lack of attention to a generative outcome like creative performance is due to the literature's depiction of the socialization experience as fairly negative, often describing the newcomer as anxious, stressed, and eager to blend in (e.g., Nelson, 1987). As such, the choice of work outcomes under investigation tends to match this view, focusing on the ways in which newcomers align behaviors and attitudes with the organizational status quo (e.g., routine task performance, organizational identification). However, topics related to creative performance have not been completely ignored in the organizational socialization literature. In fact, scholars have long acknowledged that the socialization process has the potential to produce a range of outcomes in the newcomer,

“...from outright rebellion to *creative change* of the organization by the new member to rigid conformity...” (Fisher, 1986, p. 101, emphasis added).

Early theorizing and empirical research focused on role innovation, or the extent to which newcomers change their work roles (Schein, 1971a, 1971b). Role innovation appears in Nicholson’s (1984) theory of work role transitions, which describes four behavioral outcomes resulting from different combinations of newcomers’ personal and role development. Personal development refers to the adoption of new frames of reference, thinking, and values as a result of a role transition; role development refers to the newcomer proactively changing role requirements, rather than themselves, in order to achieve role fit (Kristof-Brown, Zimmerman, & Johnson, 2005). Role innovation can occur when the newcomer attempts to change the work role (i.e., high role development), but retains existing ways of thinking and behaving (i.e., low personal development); this is referred to as “Determination”. Role innovation also occurs when there are concurrently high levels of both personal and role development, known as “Exploration”. Nicholson (1984) proposes that role innovation will be most likely to occur when newcomers are allowed a high degree of discretion in how to approach their work. A high degree of novelty in the work environment may produce exploration, but not necessarily determination. That is, when the newcomer relies primarily upon past knowledge and habit, there will be less need for personal change, although the newcomer may still capitalize on opportunities to exercise autonomy and discretion in changing the role.

Research suggests that the organization’s use of socialization tactics is associated with newcomer role innovation. Institutionalized tactics, i.e., the organization’s attempts

to socialize newcomers in a structured, lock-step manner (Jones, 1986) tends to suppress role innovation (Ashforth & Saks, 1996), while the relative lack of structure stemming from the use of individualized socialization tactics appears to increase the likelihood that newcomers will change their roles (Allen & Meyer, 1990; Ashforth & Saks, 1996; Jones, 1986). Thus, it appears that less intervention on the part of the organization leads to more discretion by newcomers to guide their own socialization experiences, and increases the likelihood that they will change their roles as they see fit. Newcomer proactivity and perceived control has been positively associated with role innovation (Ashforth & Saks, 1996; Ashforth & Saks, 2000), further supporting this line of reasoning. However, Ashforth and Saks (1996) note that institutionalized organizational tactics could be used to encourage role innovation, rather than conformity, if the messages relayed through these structured experiences are crafted to encourage change.

Role innovation shares similarities with creative performance in that the changes made to the work role can range from incremental to radical (Madjar, Greenberg, & Chen, 2011; Nicholson & West, 1989) and can be present in any job (Ashforth, 2001; George, 2007). However, although role innovation may be related to creative performance, it is not identical. Role innovation represents changes made to one's work role only, whereas the target of a newcomer's creative ideas could be her own work, others' work, or the organization's products and services, for example (Zhou & Hoever, 2014). Thus, creative performance is a broader construct that represents a newcomer's characteristic approach to a variety of work problems, tasks, or situations. Further, creative performance involves generating ideas that are both novel and potentially

valuable (Amabile, 1996); role innovations, while they may be novel, may not always be valuable to the organization or its representatives (Staw & Boettger, 1990).

Only a few studies to date have examined creative performance as an outcome of the socialization experience. For example, empowering leadership during organizational entry, framed as a tactic used by organizations to socialize newcomers, has been positively associated with newcomer creative performance; further, this relationship becomes stronger when the newcomer also perceives that the organization supports creative idea generation (Harris et al., 2014). Certain newcomer proactive behaviors, such as relationship building directed toward one's supervisor, and newcomer proactive personality have also been positively associated with creative performance (Kammeyer-Mueller et al., 2011; Kim, Hon, & Crant, 2009). Other work on expatriate experiences, which are conceptually similar to the experiences of organizational newcomers, suggests that living abroad and adapting to a new culture increases creative idea generation (Fee & Gray, 2012; Maddux & Galinsky, 2009). Finally, the results of one study suggest that a moderate amount of role ambiguity, considered a prototypical feature of the early organizational entry period, is positively associated with creative performance (Wang, Zhang, & Martocchio, 2011). This work, although limited, suggests that socialization experiences are potentially important for employees' creative performance.

II. Newcomer Proactive Collaboration

a. Existing Conceptualizations of Proactivity during Organizational Entry

Early organizational socialization research emphasized the organization's efforts to socialize the newcomer through the use of a variety of tactics. The seminal work of

Van Maanen and Schein (1979) motivated researchers to develop organizing frameworks for these tactics and pursue empirical research linking tactics with newcomers' work behaviors and attitudes. Newcomers themselves did not figure very prominently in the socialization process; rather, they were positioned as fairly passive recipients of the organization's influence. Concurrent theorizing on newcomer sensemaking (Louis, 1980), however, offered a different perspective. The newcomer was positioned as an integral figure in the socialization process, actively attending to, interpreting, and deriving meaning from the novelty and uncertainty experienced during organizational entry. This perspective opened up new opportunities to examine what newcomers do to facilitate their own role adjustment.

Following this perspective, organizational socialization research has increasingly focused on the role of the proactive newcomer during the entry period. Proactive behavior involves an employee taking initiative to make things happen with the intent of changing current circumstances or directing future opportunities (Crant, 2000; Grant & Ashford, 2008; Parker, Bindl, & Strauss, 2010). Key to proactive behavior is that it is anticipatory and self-initiated (Parker & Collins, 2010). Multiple frameworks exist that organize the proactive behaviors currently under study; one framework, drawing on theories of person-environment fit (Edwards, 2008), posits three motives underlying employee proactive behavior. Employees can proactively attempt change in how the organization operates in the external competitive environment, they can act to change the organization's internal environment, or they can attempt to change one's own fit with the organization (Parker & Collins, 2010). The latter motive has been most relevant for

organizational socialization research, e.g., examining how newcomers' proactive behaviors facilitate the transition and assimilation into a new work role (Cooper-Thomas & Burke, 2012).

Most research on newcomer proactivity draws upon the seven proactive behaviors identified by Ashford and Black (1996): Information seeking, feedback seeking, general socializing, networking, relationship building with one's boss, job change negotiating, and positive framing. Research generally supports positive relationships between these behaviors and a range of desirable socialization outcomes including increased task performance, retention, and learning (Ashforth et al., 2007; Wanberg & Kammeyer-Mueller, 2000), and one study links newcomer proactivity with creative performance (Kammeyer-Mueller et al., 2011). Newcomer proactivity remains a topic of interest to the field, with researchers continuing to draw upon this perspective when examining the organizational socialization process (e.g., Cooper-Thomas et al., 2014; Saks, Gruman, & Cooper-Thomas, 2011).

However, a closer look reveals an interesting consequence of how newcomer proactivity has traditionally been framed. Proactive behaviors, as they are currently conceptualized, presume that newcomers act proactively in order to ensure that they *receive* something – e.g., help, information, or social acceptance – and thus it is the act of receiving that is presumed to primarily facilitate learning and adjustment. While this is certainly a legitimate, theoretically grounded perspective (Bandura, 1977), other theory posits that people learn not only by receiving information, but also by sharing their own ideas and experiences during collaborative exchanges (Tudge & Winterhoff, 1993;

Vygotsky, 1987). Research on collaborative learning in educational settings (e.g., Arbaugh & Benbunan-Finch, 2006; Johnson, Maruyama, Johnson, Nelson, & Skon, 1981) supports the idea that task-oriented social interactions allow people to capitalize on the learning and performance benefits that giving and receiving both provide.

Newcomers' attempts to involve themselves in work-related collaborative exchanges may play an important role in the organizational socialization process, but such a conceptualization does not currently exist in the literature. Therefore, in the next section I introduce proactive collaboration as a form of proactivity that represents the give-and-take that often accompanies working with others. I offer a definition of proactive collaboration, differentiate it from similar constructs, and describe its key characteristics.

b. Proactive Collaboration

As mentioned previously, proactive collaboration is an individual-level construct that reflects an employee taking initiative to engage others in collective work. This definition integrates existing views of collaboration as a collective, interactive phenomenon (e.g., Baer et al., 2010; Bedwell et al., 2012; Paulus, 2000) with individual-level proactive behavior (Crant, 2000; Grant & Ashford, 2008), and it has three attributes that differentiate it from other constructs found in both the creativity and organizational socialization literatures. First, proactive collaboration is social, requiring two or more people. It is therefore distinct from a related construct – information seeking – that includes both social (e.g., co-workers, supervisors) and non-social (e.g., policy statements, company intranet) sources of information that employees may seek

(Morrison, 1993; Miller & Jablin, 1991). Second, proactive collaboration is work-oriented. The intent of proactive collaboration is to advance one's work or solve a work problem, therefore it is exclusively task-focused, unlike other social forms of proactive behavior such as general socializing and networking (Ashford & Black, 1996; Wanberg & Kammeyer-Mueller, 2000). Third, proactive collaboration does not presume any underlying motive beyond that of making progress on a work goal. This makes proactive collaboration related to, but distinct from, help seeking and help giving, two social behaviors that have been implicated as important for both group and individual-level creative performance (Hargadon & Bechky, 2006; Mueller & Kamdar, 2011). Seeking or giving help implies that someone is struggling, that one's work is going poorly and the hope is that help from others will improve it (Mueller & Kamdar, 2011). However, it is possible that employees may seek out collaborative exchanges even when their work is going well. Help seeking and help giving, then, are narrower constructs than proactive collaboration.

The above provides a general definition of proactive collaboration. Next, I describe the behaviors that represent collaboration from the individual's perspective. I again draw upon individual and group-level collaboration research to inform my discussion of proactive behaviors that can be considered collaborative. The literature, however, varies considerably with respect to both the specificity and comprehensiveness with which collaboration is described and measured. While some scholars provide an explicit definition of collaboration (e.g., Baer et al., 2010; Bedwell et al., 2012; Jassawalla & Sashittal, 1998), others refer to collaboration as more generally working

together or do not define the construct at all. The literature also varies in the scope of behaviors that are identified as representative of collaboration. Some studies operationalize collaboration as a single type of behavior, such as exchanging ideas (e.g., Chua, Morris, & Mor, 2012); others conceive of collaboration as consisting of multiple behavioral dimensions, such as idea giving, idea taking, and idea co-creation (e.g., Elsbach & Flynn, 2013); while others include broad phenomenon such as leadership and extra-role behavior as representative of collaboration (Bedwell et al., 2012). Although the existing literature is somewhat fragmented, three behaviors emerge most often when scholars describe what happens during collaborative exchanges – *exchanging knowledge*, *exchanging ideas*, and *creating shared meaning*. I describe each in more detail below.

Exchanging knowledge involves an employee proactively sharing his knowledge with others as well as encouraging others to share their knowledge during collaborative events. Knowledge sharing, i.e., making explicit and public one's stock of information or prior experience, is frequently positioned as a key aspect of collaboration in creative performance research and for other work outcomes, (e.g., Chua et al., 2012; Elsbach & Flynn, 2013; Hill, Bartol, Tesluk, & Langa, 2009). For example, leaders' collaborations have been operationalized as including knowledge sharing, among other behaviors (Carmeli, Gelbard, & Reiter-Palmon, 2013). In a case study of academic – practitioner collaboration, Amabile et al. (2001) positioned knowledge sharing as fundamental to collaboration and successful research outcomes, and observed that collaboration quality was compromised when information could not be freely exchanged, such as when confidentiality agreements prevented the release of research participant data.

Research citing knowledge exchange as key to collaboration has been studied most often at the group level; this work tends to focus on sharing behavior. This seems appropriate for group-level research because the frequency with which members share information with other members can be observed and measured within a group. When conceptualizing proactive collaboration at the individual level, however, focusing only on sharing is likely an inadequate conceptualization of knowledge exchange, because exchange involves both sharing and receiving. Scholars have noted a need to make the give and take of exchanging knowledge during collaboration more explicit (Konstantinou & Fincham, 2011). Therefore, proactive collaboration from the individual's perspective includes proactively sharing one's own knowledge as well as behaving in ways that increases the likelihood of receiving knowledge from collaboration partners.

Exchanging ideas is often cited as a key aspect of collaboration, particularly in creative work (Amabile, 1996; Glăveanu & Lubart, 2014). Similar to knowledge exchange, most research that mentions exchanging ideas during collaboration focuses on sharing. When people share ideas, they offer others a glimpse into their provisional work, opening it up to feedback and further development. A description of the collaborative working style of preeminent American composer Aaron Copland highlights how he built a community of artists with colleagues who met regularly to share ideas (John-Steiner, 2000). Indeed, the concept of the artists' *salon* was built upon this notion of idea sharing in a collaborative environment, as a means to enhance one's own creative work (Chalif, 2006). In other research, the frequency with which ideas are shared within a dyad or group is used as one method of observing and measuring collaboration (e.g., Baer et al.,

2010; Chua et al., 2012; Elsbach & Flynn, 2013). For example, in a lab study of cross-cultural creativity, collaboration was measured as the extent to which partners were perceived as forthcoming and open in sharing their ideas (Chua et al., 2012). Sharing ideas is so fundamental to collaboration that it motivated the development of the brainstorming technique (Osborn, 1953), a classic, yet controversial, example of an intervention to increase idea sharing in collaborative groups.

In contrast, acquiring or taking ideas has received less attention in the literature; however, receiving ideas from others also appears to be a fundamental part of proactive collaboration. In a qualitative study of toy designers that examined creative collaboration from the individual's perspective, Elsbach and Flynn (2013) noted the importance of idea taking behavior during collaborative exchanges. Idea taking includes prompting others to share ideas (e.g., soliciting, requesting) as well as attending to and recognizing shared ideas as relevant to one's own work. As one toy designer noted, "I will recruit anybody who will stop for 5 minutes to stand and play...I'm always asking others...like I'll say, 'Well, what if it did this? Do you think it could be fun if we could do this? And I get the best and most amazing ideas that way...'" (Elsbach & Flynn, 2013, p. 535). Thus, it appears that both sharing preliminary ideas, as well as behaving in ways intended to increase the receipt of ideas from others, are important to capturing the essence of idea exchange in proactive collaboration.

Finally, proactive collaboration involves *creating shared meaning* among those involved in the exchange. Collaborative work requires reaching a common understanding about the assumptions held by collaboration partners, what people are trying to achieve,

and how to best achieve it. Creating shared meaning goes beyond simply exchanging ideas or knowledge; it involves building consensus and thinking together about the relevant work task, problem, or goal. In order to create shared meaning, collaborative partners encourage each other to “think out loud”, ask clarifying questions, and suggest new ways of framing questions. These behaviors, labeled *reflective reframing* in Hargadon and Bechky’s (2006) study of professional service employees, help collaborative partners make sense of their points of view, as well as those of others, and help them create frames for their existing interpretation of a work task or problem. For example, in describing how study participants collectively developed an innovative athletic shoe design, Hargadon and Bechky (2006) observed that such solutions “...come about not simply because the right people were brought in to help on a project, or because they actively contributed, but also because the participants...were able to mindfully consider those contributions and change their previously held conceptions...” [492]. Collaborative work, particularly that involving creative work, often benefits from people making an effort to create a common understanding of a work issue, project, or preliminary solution, and thus provides a foundation upon which to build collective accomplishments.

This review suggests that exchange, whether in the form of information, ideas, or understanding, is integral to collaboration. Thus, new employees would be characterized as demonstrating high levels of proactive collaboration when they take initiative to ensure that they are involved in both the give and take that comes with collective work effort. Similar to other relationship-oriented proactive behaviors, proactive collaboration is

grounded in an interpersonal interaction, yet it is observed from the newcomer's perspective, i.e., the extent to which the newcomer actively directs the development of a collaborative exchange at work (Grant & Ashford, 2008).

Chapter 3: Theoretical Framework

I. Proactive Collaboration Enhances Newcomers' Creative Process Engagement

Although most research examines creative collaboration relative to group creative performance, a growing body of research suggests that collaborating also has benefits for individual creativity. For example, the extent to which scientists engage in professional collaborations is positively associated with their own creativity and theoretical influence (Barrett, Vessey, Griffith, Mracek, & Mumford, 2014). Collaboration may also help sustain individuals' creative performance over time. A study of computer disk drive inventors revealed that early successes in submitting highly creative patent ideas were followed by subsequent patents in later years that were judged to be less creative (Audia & Goncalo, 2007). These creativity declines, however, were attenuated to the extent that inventors collaborated with others. Outside of scientific fields, research has shown positive relationships between dyads' and teams' information exchange – a key component of collaboration – and team members' creative performance (Gong, Cheung, Wang, & Huang, 2012; Gong, Kim, Zhu, & Lee, 2012).

Creativity scholars theorize that collaborating exposes individuals to more diverse perspectives (Nemeth & Goncalo, 2005) and weakens their reliance on established cognitive frames that leads to exploiting existing ideas rather than developing new ideas (Audia & Goncalo, 2007). The presence of new group members (Choi & Thompson,

2005) or creative co-workers (Zhou, 2003) is thought to facilitate creativity because they open up opportunities for others to consider new alternatives and think differently about work issues (Fliaster & Schloderer, 2010); indeed, group-level knowledge sharing has been positively associated with increasing individuals' work-related knowledge (Gilson, Lim, Luciano, & Choi, 2013). This logic is consistent with broader theorizing about social interactions as opportunities for vicarious learning and expanding one's repertoire of knowledge beyond that of personal experience (Bandura, 1977). Thus, receiving ideas and knowledge from others during collaboration seems to promote new knowledge acquisition, spark new connections, and disrupt status quo thinking. There are also likely to be benefits from individuals' sharing their ideas and knowledge during collaborative exchanges. Sharing can help clarify meaning and sharpen focus – that is, when I share my ideas and experiences, do I find that they ring true or do they sound hollow and contrived? As noted by one design professional, “It is important to explain your work because that allows you to distance yourself a bit from it and clarify your thoughts” (Glăveanu & Lubart, 2014, p. 42)

In short, proactive collaboration should facilitate creative thinking. Cognitive processes are central to many models of individual creativity (e.g., Amabile, 1996; Mumford, Mobley, Reiter-Palmon, Uhlman, & Doares, 1991; Wallas, 1926; Wallas, 1976) and have been conceptualized as a series of stages or dimensions. The componential theory of creativity (Amabile, 1983; 1988; 1996) presents four stages of creative cognition: Problem/task identification, in which an individual attends to and defines a problem or task; preparation, which consists of gathering and encoding relevant

information from diverse sources; response generation, where the individual assembles a range of possible responses; and response evaluation, which involves self-evaluation of the responses or ideas initially generated. Other frameworks vary in the number of dimensions proposed or the labeling convention of the stages. For example, the cognitive processes involved in creative idea generation have been represented as four stages of preparation, incubation, illumination, and verification (Wallas, 1926; Wallas, 1976), whereas others include the four steps of the componential model plus idea implementation and idea monitoring (Mumford et al., 1991).

Amid calls for better understanding of the creative process in organizational contexts (Gilson & Shalley, 2004; Shalley et al., 2004), scholars have begun to integrate these cognitive perspectives into the study of employee creative performance, using the term *creative process engagement* to represent employees' internal creative thinking processes (Zhang & Bartol, 2010a, 2010b). Creative process engagement is a multidimensional construct composed of three dimensions that are common to most cognitive process models of creativity: Problem identification, information search and encoding, and generating alternatives (Zhang & Bartol, 2010a). Research suggests that creative process engagement is a proximal outcome of internal motivational states such as intrinsic motivation, psychological empowerment (Zhang & Bartol, 2010a), and promotion focus (Henker, Sonnentag, & Unger, 2014), as well as positive mood (To, Fisher, Ashkanasy, & Rowe, 2012). Creative process engagement has also been positioned as an individual-level outcome of social processes in organizations. A study of early-tenure employees found a positive relationship between supervisors' empowering

leadership behaviors and new employees' creative process engagement (Harris et al., 2014), providing some initial evidence that the social context of work influences newcomers' creative thinking.

The above research, coupled with the aforementioned broader theorizing on the link between collaboration and individual creativity, suggests that newcomers who seek out collaborative experiences will be more likely to engage in creative thinking, i.e., creative process engagement. The socialization period is often characterized by a great deal of novelty and ambiguity (Bauer et al., 2007), which prompts sensemaking processes in newcomers as they strive to understand what is going on around them. It is a time when newcomers are highly attentive and cognitively active, integrating what they already know with what is newly learned and extracting meaning from these experiences. Demonstrating proactive collaboration in the new work role should increase the likelihood that newcomers receive ideas and information from others that triggers creative thinking, because the nascent state of newcomers' experiences with the organization and its members means that much of what results from collaboration will be perceived as new, perhaps even surprising and contradictory, to what was expected (Louis, 1980). The newcomer then has the opportunity to use this information received from collaborative partners as a jumping-off point for his own ideas. For example, the collaborative experience may prompt a newcomer to reframe an idea or think differently about his own work, or it may spark new searches for information and the consideration of alternative ideas – key aspects of creative process engagement. Further, as newcomers share their own experiences and perspectives with others during collaborative exchanges,

they gain opportunities to make sense of them relative to their new work environments and interpersonal relationships, serving to further refine and clarify thinking that supports creative idea generation.

Hypothesis 1: Newcomer proactive collaboration is positively associated with creative process engagement.

The above theorizing leading to Hypothesis 1 positions creative process engagement as a proximal outcome of newcomer proactive collaboration. However, it is possible that thinking creatively may motivate newcomers to seek out collaborative exchanges in order to gain additional input on their thoughts and preliminary ideas. Although most extant theorizing supports a causal sequence of proactive collaboration as leading to creative process engagement, I also investigate the following research question:

Research Question 1: What is the nature of the causal order between newcomer proactive collaboration and creative process engagement?

II. Creative Process Engagement and Creative Performance

The componential model of creativity (Amabile, 1996) positions cognitive processes as the proximal antecedents of individual-level creative performance. That is, creative thinking provides the intrapersonal raw material that directly leads to creative ideas. Empirical research supports this theorizing; for example, the amount of time people spend in the problem identification and information search phases of creative process engagement is positively associated with idea quality and creativity (Illies & Reiter-Palmon, 2004; Reiter-Palmon & Illies, 2004; Reiter-Palmon, Mumford, O'Connor

Boes, & Runco, 1997). Research has also found positive relationships between employees' overall creative process engagement and creative performance (Zhang & Bartol, 2010a, 2010b); in another study, however, only the problem identification and idea generation dimensions of creative process engagement, but not the information search and encoding dimension, were positively related to creative performance (Henker et al., 2014). Further, one cross-sectional study of early-tenure employees (6 months of tenure or less) also found a positive relationship between creative process engagement and supervisor ratings of new employees' creative performance (Harris et al., 2014).

Given this prior work, I predict:

Hypothesis 2: Newcomer creative process engagement is positively associated with supervisors' assessments of newcomer creative performance.

III. The Newcomer as Initiator of Proactive Collaboration

The discussion thus far establishes the importance of newcomers' proactive collaboration for the development of creativity during organizational entry. Not all newcomers, however, will be equally inclined to collaborate with organizational insiders. If creative performance demands active participation in collaborative activities, as my model suggests, it follows that some people may be better able to realize this experience than others (Abra, 1994). In this section, I position two individual difference variables – curiosity and creative role identity – as antecedents of newcomer proactive collaboration. Curiosity and role identity are personal characteristics that are potentially important for facilitating sensemaking, i.e., the process by which people interpret and derive meaning from their environments (Maitlis & Christianson, 2014; Weick, 1995; Weick & Roberts,

1993). Environments or stimuli that are new, unfamiliar, and complex – prototypical descriptors of both the entry experience and the creative process – are likely to trigger sensemaking processes in individuals (Drazin, Glynn, & Kazanjian, 1999; Louis, 1980; Weick, 1995). Sensemaking is also a social process, as individuals seeking to make sense of equivocal situations often look to others as a source of meaning (Maitlis, 2005). Therefore, examining sensemaking-relevant individual differences as antecedents of proactive collaboration provides an opportunity to examine why newcomers are motivated to collaborate and engage in creative idea generation early in their tenures. By focusing on individual differences, I seek to draw attention to the role the newcomer plays in the organizational socialization process and its outcomes, in this case creative performance. Further, I draw on interactionist theories of creativity and organizational socialization (Griffin et al., 2000; Woodman et al., 1993) to argue that the socialization context acts as an important contingency that influences the creative process as it unfolds during the first months of employment.

a. Curiosity

Curiosity is the drive to explore one's environment in order to discover new knowledge or gain experience (Berlyne, 1954; Kashdan et al., 2009; Litman, 2008). Like other personality traits, curiosity is motivational, triggering a corresponding state that leads to characteristic behavioral responses (Harrison, 2011; Silvia & Kashdan, 2009). Curiosity is often depicted as multi-dimensional, with varying conceptualizations. The framework used in this study draws upon a two-dimensional structure consisting of specific and diversive curiosity (Berlyne, 1954, 1960, 1966). Specific curiosity involves

the desire for knowledge about a given stimulus; it is evoked in response to specific problems and motivates a targeted search in order to discover a single answer or problem solution. Diversive curiosity, in contrast, is a broader, more general desire to know and explore, and motivates exploration that does not have a specific target or goal. Other work describes curiosity's dimensions as a feeling of deprivation versus interest (Litman, 2008), as exploration and absorption (Kashdan, Rose, & Fincham, 2004), or as stretching and embracing (Kashdan et al., 2009).

Although there is a long history of studying the personality traits associated with creativity (Hennessey & Amabile, 2010), curiosity has been mostly overlooked, perhaps because of heavy reliance on broad trait dimensions, such as those of the Big Five framework, to explain creative performance (Feist, 1998). However, curiosity – particularly the diversive dimension of the trait – seems well-positioned to be an important antecedent of creative performance (Harrison, 2011; Kashdan & Fincham, 2002). For example, curiosity, along with other traits such as persistence and honesty, has been identified as important for R&D scientists' creativity (Amabile, 1988) and is theorized to motivate the search for experience and information that opens people up to generating new ideas (Kashdan & Fincham, 2002).

Curiosity should also motivate collaborative exchanges; it has been shown to facilitate interpersonal relationships, purportedly because others respond positively to the interest and responsiveness exhibited by the highly curious partner (Kashdan & Roberts, 2004). Curiosity is cited as a quality others look for in collaborative partners (Harrison & Rouse, 2014) and has been positioned as a trigger for social behaviors (Harrison, 2011).

Curious employees recognize other people as a source of novelty that is available to them to connect with and from whom they can gain the knowledge and experience they desire. By way of example, the below excerpt from an interview with an R&D scientist (c.f. Amabile, 1988, p. 124) illustrates how this might unfold:

“I was working on the formulation of emulsions. At the time, I had an office mate who was working on a different problem area...he got upset that I never told him anything about what I was doing. I said that there were lots of things I could tell him about, and I picked one just to satisfy his curiosity. Afterward, I got to thinking about that idea I’d picked, and realized that I was on to something there. The next think I knew, I was in the lab working on it.”

Thus, the office mate’s curiosity triggered an exchange that resulted in the scientist sharing a provisional idea².

There are several reasons why curiosity is a relevant personality trait to examine in socialization contexts. First, within general personality-performance frameworks, trait activation theory posits that traits are latent potentials within an individual that are triggered by relevant situations (Tett & Burnett, 2003; Tett & Guterman, 2000). As curiosity involves engaging with unfamiliar stimuli based on a desire to know, the novelty of the entry period is likely to facilitate the expression of this trait in newcomers. Second, curiosity has been likened to overarching competencies that enhance a person's ability to engage with and succeed under conditions of change and ambiguity (Harrison, Sluss, & Ashforth, 2011), which represents the socialization period well for many

² It is also worth noting that, by sharing his idea, the scientist returned to the lab with renewed interest in further developing it, thus providing another example of how proactive collaboration sparks creative thinking as proposed in Hypothesis 1.

employees. Finally, empirical evidence supports the inclusion of curiosity in models of the socialization process, as it has demonstrated positive relationships with both proximal adjustment and more distal socialization outcomes. For example, in a study of call center employees, new employees were more likely to seek socialization-related information and frame their work experiences in a positive manner, two proactive behaviors that were subsequently positively associated with newcomers' task performance and initiative taking (Harrison et al., 2011). Curiosity has also been shown to have direct effects on newcomer task performance, and indirect effects through socialization-based learning (Reio & Callahan, 2004).

Thus, research specific to the socialization context and work that more broadly connects curiosity to social behaviors suggests that newcomers' curiosity will be positively associated with their proactive collaboration. A highly curious newcomer will interpret the novelty of the work environment as an opportunity to explore and discover. Because a central function of curiosity is to immerse oneself in the immediate environment in order to gain experience and knowledge, newcomers high in curiosity will be more likely to engage with the key constituents comprising their local context – that is, organizational insiders. In contrast, a newcomer lower in curiosity lacks the internal drive to explore and experience, and so he will be more likely to avoid the uncertainty and potential social risks that comes with attempting to initiate collaborative exchanges with unfamiliar people.

Hypothesis 3: Newcomer curiosity is positively associated with proactive collaboration.

b. Creative Role Identity

According to role identity theory, people occupy multiple social roles, which lead them to develop multiple identities in relation to those roles. The frame of reference provided by one's role identity, i.e., a self-view within a particular role (Burke & Tully, 1977; Hogg, Terry, & White, 1995), facilitates sensemaking and direction for behavior. Because identity is a fundamental aspect of the self, people are motivated by self-verification needs to behave in ways that align with, rather than contradict, their established identities (Swann Jr, 1983).

Creative role identity refers to one's self-view specifically as a creative contributor within a role, in this case a work role. As with other role identities, creative identity forms as a result of normative expectations for creativity from one's co-workers, the individual's own retrospective view of their creative behavior at work, and the larger cultural context in which a work role is enacted (Farmer et al., 2003). Thus, one's creative role identity is in part a social identity, linked to group membership and affiliation (Tajfel, 1982). Although research is limited, what does exist suggests positive relationships between creative role identity and employee creative performance (Jausi, Randel, & Dionne, 2007; Wang & Cheng, 2010).

Identity also plays a pivotal role in newcomers' socialization and adjustment. Crossing a role boundary, such as entering a new work role, triggers identity motives in newcomers, in that they will desire to develop a situated identity relative to the new role expectations, social environment, and organizational culture (Ashforth, 2001). That is, the experience of starting a new job has been likened to a dynamic process of *becoming*,

of establishing a sense of self relative to one's new social context (Ashforth, Harrison, & Sluss, 2014). At any given time during the early months of employment, then, newcomers are likely in the process of forming a new work role identity. However, the prior work role identity still exists and exerts influence: Seminal research on newcomers' experiences of role entry highlights the continued influence of prior identities, that "in typical entry situations no newcomer transition ritual erases all trace of the old role before the new role is taken on" (Louis, 1980, p. 235).

Following this logic, creative role identity should also play a role in newcomers' creative behaviors. I argue, however, that it is the creative role identity established from prior work experiences that triggers creative behaviors in the first months of employment. That is, because the identity development process unfolds over time, the nascent state of one's creative self-concept in the new role will make it initially less relevant for predicting early creativity. One's established creative identity, however, formed from prior role experiences, will be more accessible to the newcomer and more desirable given the need to retain some sense of coherence (Markus & Wurf, 1987) during a turbulent time like starting a new job. Therefore, the newcomer will likely rely more heavily on the self-concept he has already established until the new, situated role identity development process is more complete.

Therefore, when choosing whether to develop new ideas or rely on habitual ones (Ford, 1996) during the first months of employment, I propose that newcomers will choose behaviors that align with their existing, established role identities that were formed while at another organization while their new role identities continue to develop.

Newcomers with strong creative role identities from prior work roles will be more likely to seek opportunities to collaborate, because collaboration is recognized by many creative professionals as central to developing their own creative work (Glăveanu & Lubart, 2014), and, by extension, aligns with their self-concepts. That is, newcomers with strong established creative identities will engage in proactive collaboration because it will help maintain a sense of self in an uncertain, ambiguous socialization environment. Proactive collaboration should be less prevalent for newcomers who enter their new organizations with weaker creative role identities, because such behavior will not be as strongly affiliated with their self-concepts.

Hypothesis 4: Newcomer prior job creative role identity is positively associated with proactive collaboration.

IV. The Influence of the Organizational Socialization Context on the Creative Process

As mentioned earlier, an organization's efforts to shape newcomers' socialization through the manipulation of key entry experiences can be a powerful method by which they are assimilated. Most research about the socialization context draws upon one or more of the six organizational tactics presented by Van Maanen and Schein (1979). These tactics are broad depictions of how newcomers experience socialization; prior to this work, research had focused on the more specific delivery mechanisms of the onboarding experience, such as training and mentoring (Ashforth, Sluss, & Harrison, 2007). The six bipolar tactics are as follows (Ashforth et al., 2007; Saks & Gruman, 2012; Van Maanen & Schein, 1979):

- Individual–Collective: In which newcomers experience socialization apart from other newcomers and have relatively unique socialization experiences versus moving through socialization in a group.
- Informal–Formal: In which newcomers are immediately embedded into the existing social context versus kept separate from organizational insiders while experiencing socialization.
- Random–Sequential: Involves an unknown, variable, or random sequence of experiences versus a fixed set of socialization experiences leading up to adoption of the insider role.
- Variable–Fixed: In which there is an unknown timetable for adopting the insider role versus a predetermined amount of time until socialization is deemed complete.
- Disjunctive–Serial: In which no insider help is available while moving through the socialization experience versus having insiders available to act as guiding experts or role models for adjustment.
- Divestiture–Investiture: Involves organizational efforts to detach newcomers from prior role identities versus the organization affirming the newcomers' established identities or personal characteristics.

Jones (1986) described these six tactics as representing a continuum ranging from individualized to institutionalized socialization. Individualized socialization involves individual, informal, random, variable, disjunctive, and divestiture tactics, whereas institutionalized socialization includes collective, formal, sequential, fixed, serial, and

investiture tactics. Organizations that adopt institutionalized tactics provide more structure for newcomers, whereas newcomers in organizations that use individualized tactics experience socialization in a more unstructured, ambiguous way (Ashforth, Saks, & Lee, 1997; Saks & Gruman, 2012). Meta-analytic evidence supports the role of these tactics in shaping newcomer socialization outcomes, with the more structured institutionalized tactics appearing to reassure newcomers and reduce their uncertainty (Bauer et al., 2007). Only one study has examined the association between aspects of the socialization context and newcomer creative performance (Harris et al., 2014); this work did not use the socialization tactics taxonomy describe above, but instead treated leadership behavior as a tactic.

Although research generally supports the idea that these organizational socialization tactics are associated with newcomers' subsequent job attitudes and performance (e.g., Ashforth & Saks, 1996; Bauer et al., 2007; Cable & Parsons, 2001), the study of these tactics is not without controversy. The validity of the institutionalized and individualized characterization has been questioned, with the two-factor structure showing poorer fit and predictive validity than examining the six tactics individually (Ashforth et al., 1997). The conceptual meaning of investiture tactics as they fit under institutionalized socialization and, likewise, the meaning of divestiture tactics under individualized socialization has also been challenged (Bauer et al., 2007) and has led to new scale development to measure these tactics (Ashforth & Saks, 1996). Therefore, it may be more fruitful to examine the tactics individually in order to more clearly understand their role in influencing newcomer behavior, because the tactics purportedly

emphasize different facets of the learning and socialization process. Although meta-analytic results show that the categorizations of institutionalized and individualized tactics make sense empirically, i.e., the facets of each tend to predict similarly, it is unclear whether this remains to be true when examining a specific behavior like collaboration in relation to creative performance.

Jones (1986) provided another categorization of the socialization context, categorizing the six tactics as social (divestiture-investiture, disjunctive-serial), content (random -sequential, variable-fixed), and context (individual-collective, informal-formal). This categorization groups the tactics according to common socialization themes, but offers greater opportunity to examine differences between these contextual factors than the single institutionalized – individualized grouping (Cable & Parsons, 2001). Drawing upon this categorization, I argue that examining how organizations shape newcomers’ early social interactions at work is important for newcomer creative performance, because such social tactics may strengthen (or weaken) a newcomer’s natural inclination to engage in collaborative moments that form part of the creative process. This perspective also aligns with broader creativity theory that emphasizes the importance of person-situation interactions when explaining employees’ creative performance (Amabile, 1996; Woodman et al., 1993).

Below, I discuss in more detail two features of the socialization context that theory suggests should play a role in a social process model of newcomer creativity – organizational attempts to disconfirm or affirm newcomers’ existing identities (i.e., *divestiture-investiture tactics*), and the *presence of creative role models*. I position these

contextual factors as interacting with a newcomer's creative behavior at multiple points as the process unfolds, in order to reflect that socialization is a concomitant process that is experienced over time (Ashforth, 2012).

a. Divestiture – Investiture Tactics

As mentioned above, investiture tactics are those that encourage the newcomer to retain her existing identity, whereas divestiture tactics encourage the newcomer to discard her prior identity and adopt the identity of the new organization. The assumption underlying the use of investiture tactics is that one's existing identity is seen as a valued asset to the new organization, whereas the use of divestiture tactics implies that the organization desires to shape a new identity for the newcomer, because the existing one may not fit.

I argued previously that proactive collaboration is prototypical for employees with strong creative work role identities, and I expect that, on average, newcomers entering an organization with strong creative role identities will be more likely to display proactive collaboration than newcomers with weaker creative role identities, because such behavior is consistent with their established self-concepts. However, the extent to which the organization attempts to change newcomers' identities upon entry likely influences the predictive validity of prior creative role identity as an antecedent of proactive collaboration. For example, research has found that investiture tactics are negatively associated with person change (Ashforth & Saks, 1996). If a newcomer with a strong existing creative identity receives signals from her new work environment that "we like you the way you are, don't change", she will be more confident that behaving in ways

consistent with her self-concept as a creative worker, e.g., initiating proactive collaboration, is acceptable and valued in her new work setting. On the other hand, strong divestiture tactics will encourage the newcomer to more quickly cast off the prior creative role identity, thus breaking the link between the prior creative role identity and behavior in the new role. Even if one's established creative role identity is strong, a social environment that discourages reliance on one's prior identity should result in a lower incidence of proactive collaboration in the new role.

Hypothesis 5: Divestiture–investiture tactics moderate the positive relationship between prior job creative role identity and proactive collaboration in the new role, such that the relationship is stronger when investiture tactics are used than when divestiture tactics are used.

b. The Presence of Creative Role Models

Creativity scholars have theorized that the presence of creative role models – i.e., co-workers who are perceived as highly creative – is a potentially important situational influence on employees' creative performance (Amabile, 1996; Perry-Smith, 2006). The availability of role models maps conceptually onto disjunctive-serial socialization tactics; because insiders comprise a large part of the local context of the socialization environment, these tactics may facilitate the receipt of guidance and normative information that newcomers need (Ashforth et al., 2007). The presence of creative role models can be considered a creativity-specific serial-disjunctive socialization tactic that reflects the extent to which newcomers have access to organizational insiders who are perceived as creative.

Research suggests that close proximity to creative role models is more strongly related to creative performance than to habitual, routine performance (Madjar et al., 2011). Other work suggests, however, that role models' influence on creativity is complex and likely contingent upon other situational and individual difference factors (Amabile, 1996; Zhou, 2003). For example, Zhou (2003) found that the presence of creative role models enhanced employees' creative performance only when other situational conditions and personality characteristics were present (e.g., low supervisor close monitoring, creative personality). This work suggests that new employees will respond differently to creative role models depending on their established, characteristic responses to their environments. Further, although existing research focuses on how the presence of creative role models associates with end-stage creative outcomes, we do not yet know when and how role models might change the course of the creative process as it unfolds. In this study, I examine the availability of creative role models as a feature of the socialization context that may play a role in newcomer creativity at multiple stages of the social process model shown in Figure 1.

Hypothesis 3 predicts that newcomers higher in curiosity, because of their natural tendency to actively seek out, engage with, and explore the novelty of their environment, will be more likely to engage in proactive collaboration than newcomers lower in curiosity. Since colleagues make up a large part of the immediate work environment, highly curious newcomers should be motivated to seek out and initiate collaborations in order to gain the knowledge and experience they desire. To the extent that organizational insiders are made available to the newcomer, this will provide additional opportunity for

highly curious newcomers to engage collaboratively, thereby acting to satisfy their curiosity. Further, when these insiders are themselves engaged in creative work, the new ideas they are generating will provide even more novelty that will attract the highly curious newcomer to engage with them in collaborative exchanges. In contrast, the presence of creative role models should not motivate more proactive collaboration in newcomers who are low in curiosity, because they will either choose not to attend to the additional novelty that creative role models offer, or they will not feel a strong motivation to proactively engage with this novelty.

Hypothesis 6: The presence of creative role models moderates the positive relationship between curiosity and proactive collaboration, such that this relationship is stronger when the presence of creative role models is higher than when it is lower.

I also expect that the presence of creative role models will strengthen the relationship between newcomers' prior job creative role identities and their proactive collaboration, but the theoretical rationale underlying such a relationship is different than that of curiosity. Social identity theory (Tajfel, 1982) posits that people seek to retain and confirm their established identities. A newcomer with a strong existing creative identity who enters an organization that presents many colleagues who are themselves creative should experience a stronger motive to establish herself as part of the in-group of creative contributors, compared to a newcomer with a weaker creative identity. Thus, a strong existing creative identity will increase the likelihood that the newcomer will try to collaborate with insiders, because this may be one way of gaining acceptance from

creative co-workers perceived to be similar. The increased desire to engage collaboratively with creative co-workers also stems from impression management motives. That is, people desire to further confirm their established identities by conveying that identity to similar others (Markus & Wurf, 1987). By engaging collaboratively with insiders, the newcomer with a strong creative identity will attempt to send a message to those around her that she is similar to them, thus reaffirming her existing identity. For newcomers with weaker established creative role identities, the presence of creative co-workers should not evoke such underlying motives and therefore not change their propensity to engage in proactive collaboration.

Hypothesis 7: The presence of creative role models moderates the positive relationship between prior job creative role identity and proactive collaboration, such that the relationship is stronger when the presence of creative role models is higher than when it is lower.

I also expect that creative role models influence subsequent stages of the creative process in newcomers. I propose that the presence of creative role models strengthens the positive relationship between newcomers' proactive collaboration and their creative thinking. That is, having creative role models available in the socialization environment means that they will more likely be the target of the newcomers' collaborative attempts. When the newcomer has more opportunities to collaborate with insiders who themselves are involved in creative idea generation, the quality of those exchanges, in terms of sparking creative thinking, will likely increase, resulting in stronger creative process engagement. This leads to the final hypothesis:

Hypothesis 8: The presence of creative co-workers moderates the positive relationship between newcomer proactive collaboration and creative process engagement, such that the relationship is stronger when the presence of creative co-workers is higher than when it is lower.

c. Other Organizational Socialization Tactics

Finally, because theory and research regarding the remaining four socialization tactics commonly used in organizational socialization research is less clear regarding how they might relate to newcomers' creative processes, I examine these in an exploratory manner through the following research question:

Research Question 2: How do the other organizational socialization tactics of individual-collective, informal-formal, random-sequential, and variable-fixed relate to newcomer creativity?

V. Overview of Studies

There were two studies. In Study 1, I developed and validated a proactive collaboration measure following established scale development methods and recommended best practices (Anderson & Gerbing, 1991; Hinkin, 1995). I evaluated the scale with qualitative and quantitative methods using four independent samples of content experts and full-time employed adults. The resulting 11-item proactive collaboration scale was included in Study 2, where I tested the hypothesized model of newcomer creativity (Figure 1) using a sample of organizational newcomers and their direct supervisors over a six-month period.

Chapter 4: Study 1

I. Item Development and Initial Evaluation of Content Validity

I initially developed 16 items measuring proactive collaboration using a deductive approach, i.e., I reviewed existing theoretical and empirical literature and used it as a guide for writing items. A deductive item development approach offers advantages in ensuring content validity over inductive techniques requiring that the theory development and item writing process occur concurrently (Hinkin, 1995, 1998). I reviewed relevant collaboration research across broad content areas (e.g., Elsbach & Flynn, 2013; Paulus et al., 2012), particularly that which focused on collaboration at the individual or group level³. I also reviewed the proactivity literature and examples of proactive behavior scales (e.g., Bateman & Crant, 1993; Grant & Ashford, 2008) to ensure that the items were written to clearly reflect behaviors that are self-initiated and future-focused. Finally, I focused on writing items that were consistent with my definition of proactive collaboration as a broad, work-oriented, social form of proactive behavior.

a. Participants and Procedure

I recruited five business administration doctoral students (two were female) at a large Midwestern university to participate in a content validation exercise. Using a web-based survey, participants first read the definition of proactive collaboration and then were instructed to review the 16 items with the following criteria in mind: The extent to which an item reflected the concept of proactive collaboration; whether the item

³ Although some organization-level collaboration research describes “behaviors” of firms that could also apply to individuals, such as revealing knowledge (e.g., Alexy, George, & Salter, 2013), other work describes inter-firm collaboration in ways that do not map as clearly onto behaviors that individuals or groups of individuals might enact (e.g., initiating joint ventures or contractual agreements). Therefore, I excluded most literature that focused on inter-firm collaboration from my review.

statement was clearly written; and whether the items would be relevant to employees working at a wide range of jobs. Participants provided feedback on each item statement using a three-point scale: 1 “keep item as-is”, 2 “keep item, but revise it”, or 3 “delete item”. Next, they indicated how well the items collectively represented proactive collaboration using a scale with response anchors 1 “strongly disagree” to 5 “strongly agree”.

b. Results

Overall, participants indicated that the 16-item scale adequately represented the content domain of proactive collaboration (mean = 4.00, s.d. = .00). However, several of the individual items were rated as in need of revision or removal from the scale. I met with the five participants as a group after they completed the content validity exercise and we discussed these items in more detail. Based on this feedback, I revised the scale into 15 items that I used in the next phase of the scale development process, an item sorting exercise.

II. Additional Evidence of Content Validity

I conducted an item sorting exercise using the revised 15-item proactive collaboration scale to further evaluate the scale’s content validity using a different participant sample.

a. Participants and Procedure

Participants were 23 full-time employed adults (seven were female) living in the United States; this sample size aligns with recommendations for item sort exercises (Anderson & Gerbing, 1991). Participants’ average job tenure was 5.45 years (s.d. =

3.69), and 34.8 percent had supervisory responsibilities. Participants worked in a variety of industries (e.g., professional and business services, education, financial).

The sorting exercise was conducted online using Amazon Mechanical Turk (<https://www.mturk.com>). The survey was available only to individuals who had previously earned high approval ratings (at least 85%) for work on the Mechanical Turk site. Participants were required to answer a screening question about their employment status (i.e., they were not told in advance of qualification requirements), and were disqualified from the study if they were not employed full-time. Qualified participants were presented with a randomized list of the 15 proactive collaboration scale items and 11 items from a creative process engagement scale (Zhang & Bartol, 2010a); definitions of both proactive collaboration and creative process engagement were provided. The participants were instructed to assign each item to its correct construct. An “Other” option was provided if a participant did not feel an item represented either of the constructs.

b. Results

I evaluated the results of the item sorting exercise using a substantive validity analysis, a recommended technique for the preliminary evaluation of scale items (Anderson & Gerbing, 1991; Hinkin, 1998). Two indices were calculated for each of the 15 proactive collaboration items: The proportion of substantive agreement (PSA) and the coefficient of substantive validity (CSV). The PSA is the proportion of participants who assign an item to its intended construct; the CSV is the degree to which participants

assign an item to its intended construct more than they assign it to other constructs⁴. The values were used together in a comparative manner to decide whether an item should be retained in a scale (Anderson & Gerbing, 1991). Following recommendations by Hinkin (1998) and prior scale development research (e.g., Spence, Brown, Keeping, & Lian, 2014), I used a joint cutoff of .75 for both the PSA and the CSV to determine what items to retain for further evaluation.

The substantive validity results are presented in Table 1. Four items fell below the cutoff value of .75 for both the PSA and CSV and were removed from the scale. The 11 items that exceeded the cutoff were retained for the next phase in the scale development process, in which I evaluated the initial factor structure and reliability of the proactive collaboration scale.

III. Evaluation of Initial Factor Structure and Scale Psychometrics

a. Participants and Procedure

I recruited 137 individuals (47, or 34 percent, were female) from Amazon Mechanical Turk who completed a web-based measure of the 11-item proactive collaboration scale. Similar to the recruiting method for the item sorting exercise, participants were required to have a high approval rating (at least 85%) on Mechanical Turk and be full-time employed adults. Participants reported an average of 5.07 years of tenure at their current job (s.d. = 5.99), 36 percent had managerial responsibilities, and 63 percent had an undergraduate degree or higher. The average age was 32.38 years (s.d. = 8.28). Participants worked in a variety of industries; the modal industry was “education,

⁴ $PSA = n_c / N$, where n_c is the number of judges who assign an item to its intended construct and N is the total number of judges. $CSV = (n_c - n_o) / N$, where n_o is the highest number of assignments of the item to any construct other than the intended one (Anderson & Gerbing, 1991).

health care, or social services” (21 percent). Upon completion of the survey, participants were paid \$0.75 as a deposit in their Mechanical Turk accounts.

b. Results

I conducted an exploratory factor analysis (EFA) on the 11-item proactive collaboration scale using principal axis factoring with oblique rotation (direct oblimin, $\delta = 0$) in SPSS 20.0. Following recommendations for evaluating EFA results (Hinkin, 1998; Russell, 2002), I used an eigenvalue cutoff of one along with a visual inspection of the scree plot to determine the number of factors extracted. One factor was extracted with an eigenvalue greater than one, and the scree plot strongly indicated one factor, with a sharp drop-off in eigenvalues for subsequent factors. The one factor explained 72 percent of the variance. Factor loadings for the 11 items are presented in Table 2. Coefficient alpha reliability for the scale was $\alpha = .96$. Given the high factor loadings, all 11 items were retained for further evaluation in the next phase of the scale development process.

IV. Evaluation of Convergent and Discriminant Validity

In this final phase, I examined the extent to which proactive collaboration was positively correlated with conceptually similar constructs (i.e., convergent validity) and either uncorrelated or negatively correlated with conceptually different constructs (i.e., discriminant validity). I validated the one-factor scale structure found previously and assessed whether proactive collaboration was distinguishable from related constructs using a confirmatory factor analysis (CFA) approach.

a. Participants and Procedure

138 full-time employed adults (61, or 44 percent, were female) completed a web-based survey “to pretest a new measure of work behavior that will be used in future research studies” through a posting on the Amazon Mechanical Turk website. Participants reported an average of 4.46 years of tenure at their current job (s.d. = 3.80), 41 percent had managerial responsibilities, and 65 percent had an undergraduate degree or higher. The average age was 31.14 years (s.d. = 7.37). Participants worked in a variety of industries; the modal industry was “education, health care, or social services” (20 percent). Upon completion of the survey, participants were paid \$0.75 as a deposit in their Mechanical Turk accounts.

b. Measures

Participants completed several measures representing constructs that I expected would show evidence of convergent and discriminant validity with proactive collaboration. Unless otherwise indicated, the scale items were averaged to create scale scores for each construct. *Proactive collaboration* was measured using the 11-item scale developed in prior phases of this study. Participants indicated the extent to which they engaged in the behaviors listed at work over the past three months, and were prompted to consider their behavior in both formal (e.g., scheduled meetings) and informal (e.g., casual interactions) work situations. Response anchors ranged from 1 “to no extent” to 5 “to a great extent”. *Creative process engagement* was measured using 11 items from Zhang and Bartol (2010a); participants were asked to indicate the extent to which they engaged in creative process behaviors when seeking to accomplish an assignment or

solve problems at work. Three items measured problem identification (example item “I thought about assignments/problems from multiple perspectives”), three items measured information search and encoding (example item “I consulted a wide variety of information”), and five items measured idea generation (example item “I generated a significant number of alternatives to the same problem before I chose the final solution”). Response anchors ranged from 1 “never” to 5 “very frequently”. *Proactive socialization* was measured using the 13-item scale from Ashford and Black (1996). Four items measured feedback-seeking (example item “solicited critiques from your boss”), three items measured general socializing (example item “attended company social gatherings”), three items measured relationship building with one’s boss (example item “worked hard to get to know your boss”), and three items measured networking (example item “tried to socialize with people who are not in your department”). Participants indicated the extent to which they engaged in the behaviors listed over the past three months at work; response anchors ranged from 1 “to no extent” to 5 “to a great extent”. The Big Five personality traits of *openness to experience*, *conscientiousness*, *extraversion*, *agreeableness*, and *neuroticism* were measured using Goldberg’s (1999) 20-item scale. Participants indicated how accurately the statements shown described how they generally are; response anchors ranged from 1 “very inaccurate” to 5 “very accurate”. Example items are “I am the life of the party” (extraversion) and “I have a vivid imagination” (openness to experience). *Proactive personality* was measured using the shortened 10-item scale from Bateman and Crant (1993). Participants indicated their agreement with the item statements using response anchors ranging from 1 “strongly

disagree” to 5 “strongly agree”; an example item is “No matter what the odds, if I believe in something I will make it happen”. Participants also completed demographic and background measures of *job tenure*, *level of job responsibility*, *education*, *gender*, and *age*.

c. Results

Means, standard deviations, correlations, and coefficient alpha reliabilities for the study variables are shown in Table 3. I expected that proactive collaboration would be positively related to other forms of employee proactive behaviors. As shown in Table 3, there were statistically significant and positive correlations between proactive collaboration and feedback seeking ($r = .46, p < .01$), general socializing ($r = .42, p < .01$), relationship building – boss ($r = .44, p < .01$), and networking ($r = .50, p < .01$). I also expected that proactive collaboration would be correlated with several aspects of personality. First, individuals who are high in proactive personality should be more likely to engage in proactive collaboration, which is a proactive behavior. As shown in Table 3, the relationship between proactive collaboration and proactive personality was positive and significant ($r = .46, p < .01$). Next, given the social nature of proactive collaboration, it should be positively related to personality factors that involve a predilection towards social interactions: In support of this idea, proactive collaboration was positively associated with extraversion ($r = .20, p < .05$) and agreeableness ($r = .30, p < .01$). I expected a negative relationship between proactive collaboration and the personality trait of neuroticism, since people high in this trait would likely view reaching out to work with others as a negative experience that may trigger anxiety or worry. Although the

correlation between proactive collaboration and neuroticism was negative, it was not statistically significant ($r = -.11$, n.s.). Finally, I did not expect that proactive collaboration would be related to job tenure, education, or age; as shown in Table 3, these relationships were not statistically different from zero.

As a final step in the scale development process, I used a series of CFAs to verify the one-factor structure of the proactive collaboration scale and establish that proactive collaboration was distinct from other forms of proactive behaviors – feedback seeking, general socializing, relationship building – boss, and networking. First, I conducted a CFA in which the proactive collaboration items loaded onto a single factor. Model fit indices (Bentler, 2007; Byrne, 2010) indicated acceptable fit for the one-factor scale (CFI = .98, RMSEA = .07). The factor loadings ranged from .65 to .88; all ps were $< .01$. These results confirmed the one-factor structure of the scale.

Next, following previous scale development research (e.g., Dobrow & Tosti-Kharas, 2011; Ferris, Brown, Berry, & Lian, 2008), I conducted a goodness of fit comparison for each pairing of proactive collaboration and one of the proactive behaviors; using a chi-square difference test, I compared fit between a model allowing both constructs to vary freely (i.e., a two-factor model) with one constraining the relationship between the two constructs to one (i.e., a one-factor model). The two-factor models demonstrated better fit for all construct pairings: for proactive collaboration and feedback seeking, $\Delta\chi^2 [1] = 374.89$; proactive collaboration and general socializing $\Delta\chi^2 [1] = 346.90$; proactive collaboration and relationship building – boss, $\Delta\chi^2 [1] = 137.04$; proactive collaboration and networking, $\Delta\chi^2 [1] = 163.36$, all $ps < .001$. These results

suggest that proactive collaboration is distinct from these other, socially oriented forms of employee proactivity.

V. Study 1 Discussion

In Study 1, I developed, refined, and validated an 11-item proactive collaboration scale. I found that the scale behaved well from a psychometric perspective, adequately represented the content domain of proactive collaboration as a proactive employee behavior, fit within the network of related constructs, and yet was distinct from other socially-based proactive behaviors, such as feedback seeking. I used this scale to measure proactive collaboration in Study 2, in which I tested my theoretical model (Figure 1) using a sample of organizational newcomers.

Chapter 5: Study 2

I. Method

a. Participants and Procedure

I conducted a multi-wave, time-lagged, survey-based study of full-time new employees and their supervisors at the United States headquarters of a multinational conglomerate organization. The organization's business model focuses heavily on innovation as a key feature of its products and services. New employee participants who enrolled in the study completed three web-based surveys over the first four months of their employment; participants' direct supervisors completed one web-based survey six months after focal participants completed the baseline survey. I chose six months as the total duration of the data collection period because a central goal of this study was to understand the creative process concomitant with the transition into a new work role.

While there are no firm rules for how long it takes a newcomer to fully transition and adjust, scholars have noted that this process can occur fairly quickly in many organizations (Cooper-Thomas & Anderson, 2006). Further, collecting newcomer data within the first six months of employment aligns with the duration of prior studies of newcomer creativity (Harris et al., 2014; Kammeyer-Mueller et al., 2011) and other socialization research outside of creativity contexts (e.g., Morrison, 1993). A study period of six months was intended to strike a balance between the desire to study creativity within – rather than beyond – the socialization period, and the need to allow sufficient time to observe emergent creative processes in newcomers.

A representative from the organization's human resource (HR) department introduced the study during a required in-person orientation meeting that all full-time new employees attended in their first week of employment. Attendees received instructions for how to enroll in the study, which was described as a University of Minnesota research study about new employee onboarding, during these meetings. One week after the orientation, the HR representative emailed the orientation attendees an enrollment reminder. Participants enrolled in the study online by completing the Time 1 survey, and I sent them email invitations to complete the Time 2 and Time 3 surveys three and four months later, respectively. Supervisors received an email inviting them to complete a web-based survey six months after their direct report, i.e. the focal participant, enrolled in the study.

I used several strategies to maximize enrollment and sustain participation in the study over the four time periods (i.e., three waves of new hire surveys and one wave of

supervisor surveys). First, by enlisting an organizational HR representative to introduce and promote the study both during and after the weekly orientation meetings, I hoped to generate interest in the study and position it as valuable for both the organization and the new employees. Second, new hire participants were offered gift cards in exchange for their participation. Third, the HR representative at the organization sent a “heads-up” email to supervisors informing them of the study and alerting them that an invitation email to participate would arrive within two weeks. Supervisors also received a gift card in exchange for their participation. Finally, I sent a reminder email to all participants who had not completed a scheduled survey within one week of receiving an invitation.

In total, 508 new employees were invited to enroll in the study during the weekly orientation meetings; 153 enrolled and completed the Time 1 survey, resulting in an initial response rate of 30 percent. I removed 34 individuals from the sample because they had completed only the Time 1 survey at the time of analysis; in other words, I retained 119 individuals who answered at least two out of the three participant surveys. One additional individual was removed from the sample due to having been employed for almost one year, and so had likely progressed through the socialization process to a much greater extent than the rest of the sample. Therefore, the final sample consisted of 118 individuals. Of these, 109 completed the Time 2 survey (ongoing retention rate = 92 percent). Of the 109 individuals who completed the Time 2 survey, 102 completed the Time 3 survey (ongoing retention rate = 94 percent). The overall response rate at the time of the final participant survey was 20 percent. Participants’ average tenure at the time of enrollment was 1.92 weeks (s.d. = 1.67), 106 (90 percent) were individual contributors

with no supervisory responsibility, and participants had an average of 7.05 years of professional work experience (s.d. = 7.56). The average age was 29.86 years (s.d. = 7.97), 114 (97 percent) held a bachelor's degree or higher, 56 (48 percent) were female, and 108 (92 percent) were white. The modal business area to which participants belonged was Corporate (41 percent).

A total of 112 supervisors were invited to participate in the study; 65 enrolled and completed the Time 4 survey, for an initial response rate of 58 percent. Supervisors had an average of 21.50 years (s.d. = 7.85) of professional work experience, 61 (94 percent) held a bachelor's degree or higher, 54 (83 percent) were white, and 28 (43 percent) were female. Four supervisors provided information about multiple new employee participants. In total, the 65 supervisors provided information about 71 new employee study participants.

b. Measures

New employee characteristics, both prior and new job information, and demographics were measured at Time 1. New employee behaviors (i.e., proactive collaboration, creative process engagement) were measured at Time 2 and Time 3. Organizational socialization tactics were measured at Time 2. Supervisor-rated creative performance was measured at Time 4. Control variables were measured at Time 1, Time 3, and Time 4. Unless otherwise noted, participants responded to item statements using five or seven point Likert scales (e.g., 1 = never, 5 = very frequently; 1 = strongly disagree, 7 = strongly agree) and the scale scores were created by calculating the average of the individual items. All new employee and supervisor survey items that were used in

this study, along with the response scales used for each measure, are provided in the Appendices and are labeled by the specific measure.

New employee characteristics were measured as follows. I measured *curiosity* using five items from Litman (2008). Participants indicated how well each statement described them generally. These five items represent the diversive component of curiosity (Berlyne, 1960, 1966); specific curiosity was included as a control variable and is described below. I measured *prior job creative role identity* using five items that were adapted from Farmer et al. (2003). Participants were instructed to think about how they thought of themselves at their previous job when answering. To help provide a frame of reference, participants were asked basic questions about their prior job (e.g., industry, last day of work) before answering these items.

New employee behaviors were measured as follows: I measured *proactive collaboration* using the 11-item scale I developed in Study 1. Participants indicated the extent to which they engaged in proactive collaboration behaviors at their new jobs. I measured *creative process engagement* using 11 items from Zhang and Bartol (2010a). The scale measured three dimensions of creative thinking: Problem identification, information search and encoding, and idea generation. Participants indicated the extent to which they engaged in creative thinking when working on tasks or solving problems at their new jobs.

For the organizational socialization tactics, I measured *investiture tactics* using five items from Ashforth and Saks (1996). Participants indicated the extent to which they experienced this type of socialization since starting their new jobs. The response scales

were bipolar; that is, lower scale scores represented divestiture tactics and higher scale scores represented investiture tactics. I also measured the five other organizational socialization tactics (e.g., *formal, serial*) using the Jones (1986) scale. Response scales were identical to that of Ashforth and Saks (1996). I measured *presence of creative role models* using three items from Zhou (2003). Participants were asked to indicate the extent to which they observed their co-workers demonstrating creativity or acting as role models for creativity in their work.

I measured the distal dependent variable of *creative performance* using 13 items from Zhou and George (2001). The scale has been used to measure creative performance in many empirical studies (e.g., Baer & Oldham, 2006; Perry-Smith, 2006; Zhang & Bartol, 2010a). Supervisors indicated the extent to which each statement was characteristic of their direct report, i.e., the new employee participant.

I included several control variables that were theoretically related to the focal study variables. Because prior research suggests that *proactive personality* is associated with both employee proactive behaviors (Fuller Jr. & Marler, 2009; Gruman & Saks, 2011) and creative performance (Kim et al., 2009), I measured this dispositional characteristic using the shortened 10-item version of Bateman and Crant's (1993) proactive personality scale. This shortened scale has been validated in prior studies of employee proactivity (e.g., Seibert, Crant, & Kraimer, 1999). Following theory suggesting that curiosity is multi-dimensional (Berlyne, 1954, 1960), I measured *specific curiosity* using five items from Litman (2008) to disentangle any shared relationships between the two curiosity dimensions and the focal study variables. I measured *task*

interdependence using five items from Van Der Vegt, Emans, and Van De Vliert (2001) to ensure that any significant findings existed above and beyond that influenced by a task environment that required interdependent work. Because supervisor ratings of employees' creative performance have been shown to be positively associated with ratings of *task performance* (Yu & Frenkel, 2013; Zhang & Bartol, 2010b), I measured this variable using seven items from Williams and Anderson (1991). Supervisors indicated the extent to which the item statements were representative of their new hire direct report. Finally, I included *new job tenure*, measured as the number of weeks on the job at Time 1, to account for any differences that may be the result of longer or shorter socialization experiences within the new organization.

c. Analysis

Given the small sample size relative to parameters in the model, I tested Hypotheses 1 through 4 using path analysis in *Mplus* (Muthén & Muthén, 1998) with single indicator latent variables specified for the unidimensional constructs. For creative process engagement, I used the average scale scores for the three subdimensions of problem identification, information search and encoding, and alternative generation as the indicators for this latent variable. For the single indicator latent variables, I corrected the indicators for measurement error by fixing the variance to $e' = (1-\alpha)*\sigma^2$, where α equals the coefficient alpha reliability and σ^2 equals the sample variance for the scale. I imputed any missing data through Time 4 (ranging from 118 to 71 individuals) using full information maximum likelihood (FIML), which is a method for handling missing data

that has been recommended as a better alternative than removing cases by listwise deletion (Graham, 2009; Newman, 2003, 2014).

I tested Hypotheses 5 through 8 using hierarchical linear regression analysis. I included the main effects of the moderator variables as control variables in the regression models, following recommendations by Cohen, Cohen, Aiken and West (2003). All variables in these models were mean centered prior to analysis in order to aid in interpretation of the model coefficients.

II. Results

a. Tests of Hypotheses 1 through 4: Main Effects

The scale means, standard deviations, coefficient alpha reliabilities, and bivariate correlations for the study variables are shown in Table 4. I included additional new employee demographic and job-related variables in the table to provide more detail about the sample and study context. As an overview of the correlations representing the hypothesized paths in the model: Proactive collaboration (Time 2) was significantly correlated with creative process engagement (Time 3) ($r = .51, p < .01$); creative process engagement (Time 3), however, was not significantly correlated with creative performance (Time 4) ($r = -.09, n.s.$). Both curiosity (diversive) and prior job creative role identity at Time 1 were significantly correlated with proactive collaboration at Time 2 (for curiosity, $r = .32, p < .01$, for prior job creative role identity, $r = .33, p < .01$).

Before testing the full path model, I conducted a series of paired CFAs to establish discriminant validity between conceptually related constructs in the

hypothesized model⁵. I used the individual scale items as indicators of the latent variables, i.e., a total disaggregation approach (Landis, Beal, & Tesluk, 2000), and I compared CFAs using a chi-square difference test (Anderson & Gerbing, 1988). First, I compared a CFA in which the two dimensions of curiosity – diversive and specific – loaded on two separate factors with one in which both dimensions loaded on a single factor. Results supported retaining a two-factor structure ($\Delta\chi^2 [1] = 50.24, p < .001$). I also compared a CFA in which diversive curiosity and prior job creative role identity, the two exogenous variables in the path model, loaded onto separate factors with one in which both constructs loaded onto a single factor. Results also supported keeping these two constructs as distinct ($\Delta\chi^2 [1] = 76.38, p < .001$). Next, I compared a CFA in which proactive collaboration and creative process engagement loaded on two separate factors with one in which both constructs loaded on a single factor; results also supported retaining a two-factor structure ($\Delta\chi^2 [4] = 219.18, p < .001$). Finally, I compared a CFA in which creative process engagement and creative performance loaded on two separate factors with a single-factor model; results supported the two-factor structure ($\Delta\chi^2 [4] = 341.14, p < .001$). Given this support for the hypothesized dimensionality of the path model, I proceeded to examine the model fit and compare it to alternative plausible models (Anderson & Gerbing, 1988).

To test the goodness of fit of the hypothesized model, I examined multiple fit indices: The comparative fit index (CFI), which indicates the improvement of fit for the

⁵ I attempted a single CFA using items as indicators that included all of the constructs in the hypothesized path model; however, the model did not converge due to a large parameter-to-sample-size ratio. Therefore, given the current sample size, I chose to report paired CFA results as evidence that the dimensionality of the model was properly specified.

hypothesized model compared to a baseline, unrestricted model; the root mean square error of approximation (RMSEA), which is a measure of model misspecification; and the standardized root mean square residual (SRMR), which is a standardized measure of the residual variance between the hypothesized model and the sample data (Byrne, 2013). CFI values of greater than .95 indicate good model fit (Hu & Bentler, 1999); for the RMSEA and the SRMR, values less than .06 indicate good fit, while values greater than .10 suggest a poor-fitting model (Hu & Bentler, 1999; MacCallum, Browne, & Sugawara, 1996). To evaluate the fit of the hypothesized model against alternative, nested models, I used chi-square difference tests and the Akaike Information Criterion (AIC), in which smaller values indicate a better fitting model (Akaike, 1987).

Fit indices for the hypothesized model are shown in the first row of Table 5. The hypothesized model fit the data well (CFI = .98; RMSEA = .04; SRMR = .05). The squared multiple correlation for proactive collaboration was $R^2 = .34$; for creative process engagement, $R^2 = .68$; and for creative performance, $R^2 = .33$. I compared the hypothesized model to an alternative model (Alternative Model 1 in Table 5) in which direct paths were added from both curiosity and prior job creative role identity to creative performance. Although the model fit was acceptable, it did not fit the data significantly better than the hypothesized model ($\Delta\chi^2 [2] = .65$, n.s.), the AIC was slightly higher than the hypothesized model, and neither of the added paths was statistically significant (for curiosity, $\beta = -.12$, n.s.; for prior job creative role identity, $\beta = -.07$, n.s.). I also compared the hypothesized model to another alternative model (Alternative Model 2 in Table 5) in which direct paths were added from both curiosity and prior job creative role identity to

creative process engagement. Again, although the fit for this alternative model was acceptable, it did not fit significantly better than the hypothesized model ($\Delta\chi^2 [2] = .22$, n.s.) and neither added path was statistically significant (for curiosity, $\beta = -.07$, n.s.; for prior job creative role identity, $\beta = -.01$, n.s.). Therefore, I retained the hypothesized path model and next examined the path coefficients to determine the results of the hypothesis tests.

Figure 2 shows the path coefficients for the model hypotheses. Table 6 shows all path coefficients in the model, including the coefficients for the control variables. In Hypothesis 1, I predicted that new employees' proactive collaboration would be positively associated with their creative process engagement. This relationship was positive and statistically significant ($\beta = .53$, $p < .01$); thus, Hypothesis 1 was supported. I did not find support for Hypothesis 2, in which I predicted that new employees' creative process engagement would be positively associated with supervisor's ratings of their creative performance ($\beta = .02$, n.s.). In Hypothesis 3, I predicted that new employees' trait curiosity would be positively associated with their proactive collaboration; in support of this hypothesis, this path coefficient was positive and statistically significant ($\beta = .29$, $p < .05$). In Hypothesis 4, I predicted that prior job creative role identity would be positively associated with new employees' proactive collaboration; although the path coefficient was positive, it was marginally significant ($\beta = .20$, $p < .10$); therefore, Hypothesis 4 was not supported.

Although not directly hypothesized, the path model in Figure 2 implies a mediation model, where new employee curiosity and prior job creative role identity are

associated with creative performance via the mechanisms of proactive collaboration and creative process engagement. The tests of indirect effects did not support this mediated model (for both curiosity and prior job creative role identity, $\beta = .00$, n.s.).

b. Examination of Research Question 1

I conducted additional analyses to examine the temporal sequence of the process variables in this study. In Hypothesis 3, I predicted that new employees' proactive collaboration (Time 2) would lead to more creative process engagement (Time 3). For Research Question 1, I explored whether the opposite sequence might be plausible; that is, whether new employees' creative process engagement (Time 2) would lead to more proactive collaboration (Time 3). I tested a path model, shown in Figure 3, which included cross-lagged relationships between proactive collaboration and creative process engagement. The fit indices for this model are presented in the last row of Table 5 (Research Question 1). Because this alternative model and the hypothesized model are not nested, I cannot compare them using the chi-square difference test; therefore, I used the fit indices, including the AIC, to compare the models. Although the RMSEA value of .09 and SRMR value of .08 were still within acceptable range, the CFI value of .88 was below the traditional cutoff for indicating good model fit. Further, the AIC of this alternative model was higher than that of the hypothesized model ($AIC_{\text{alternative}} = 2583.15$; $AIC_{\text{hypothesized}} = 1949.49$). Figure 3 shows the path coefficients for the alternative model. The path between proactive collaboration (Time 2) and creative process engagement (Time 3) was positive and statistically significant ($\beta = .29$, $p < .05$). The path between creative process engagement (Time 2) and proactive collaboration (Time 3), however,

was not statistically significant ($\beta = .00$, n.s.). New employees' proactive collaboration appears to be associated with their creative process engagement over time, rather than creative process engagement influencing later proactive collaboration.

c. Tests of Hypotheses 5 through 8: Socialization Context Interactions

Table 7 shows the hierarchical multiple regression analyses for the moderation hypotheses. In Hypothesis 5, I proposed that investiture organizational socialization tactics would interact with prior job creative role identity to predict proactive collaboration. The interaction term was statistically significant ($\beta = -.24$, $p < .01$). An examination of simple slopes, shown in Figure 4, revealed that the form of this interaction was not in the hypothesized direction. I had predicted that investiture tactics would strengthen the positive relationship between prior job creative role identity and proactive collaboration. Instead, divestiture tactics appear to strengthen this relationship; for divestiture tactics, the slope for prior job creative role identity was positive and significant ($\beta = .28$, $p < .01$); for investiture tactics, the slope was not significant ($\beta = -.07$, n.s.). Therefore, Hypothesis 5 was only partially supported.

I did not find support for Hypothesis 6 or Hypothesis 7, in which I proposed that the presence of creative role models would interact with both curiosity and prior job creative role identity's relationships with proactive collaboration. Neither of these interaction terms was statistically significant (for curiosity, $\beta = .07$, n.s.; for prior job creative role identity, $\beta = -.02$, n.s.). I also did not find support for Hypothesis 8, in which I proposed that proactive collaboration and the presence of creative role models would interact to predict creative process engagement ($\beta = .01$, n.s.).

d. Examination of Research Question 2

In Research Question 2, I sought to explore how the other organizational socialization tactics might interact with new employee creative processes. Following the framework provided by Jones (1986), I examined the broader conceptualization of the six tactics as representing the extent to which the organization's socialization ranged from individualized, i.e., less structured socialization experiences, to institutionalized, i.e., more structured socialization (Ashforth et al., 1997). I calculated an average score for each participant using all of the items from the Ashforth and Saks (1996) investiture scale and the Jones (1986) scales for the remaining five socialization tactics; lower scores represented individualized socialization, and higher scores represented institutionalized socialization. I then examined whether institutionalized socialization tactics moderated relationships between 1) curiosity and proactive collaboration, 2) prior job creative role identity and proactive collaboration, and 3) proactive collaboration and creative process engagement. Table 8 shows the results of this analysis. Institutionalized socialization tactics did not moderate the relationship between curiosity and proactive collaboration ($\beta = .03$, n.s.) or the relationship between prior job creative role identity and proactive collaboration ($\beta = -.10$, n.s.). Institutionalized tactics moderated the relationship between proactive collaboration and creative process engagement, as the interaction term was statistically significant ($\beta = -.16$, $p < .05$). Figure 5 shows the graph of the simple slopes. New employee proactive collaboration is more strongly associated with creative process engagement when the organization's socialization tactics are more individualized ($\beta = .49$, $p < .01$) than when they are more institutionalized ($\beta = .20$, $p < .01$). These results

suggest that when new employees seek out collaborative experiences in relatively “free” socialization contexts with little structure, their efforts to collaborate are even more likely to lead to creative thinking than when their socialization experiences are highly structured by their new organizations.

Chapter 6: Discussion

I. Overview of Study Findings

In this study, I developed and tested a process-focused model of new employee creativity. Currently, there is limited research available to elucidate how creativity begins in organizations generally, and, more specifically, how early entry socialization experiences contribute to creativity development in new employees. I sought to add insight into how creativity unfolds in organizational life through the current study. My focus was on new employees’ proactive collaboration, an unstudied form of employee proactivity, as a potentially important trigger of creative thinking and, ultimately, creative performance during organizational entry. I examined the links between proactive collaboration, creative process engagement (i.e., creative thinking), and creative performance over the first six months of an employee’s tenure. I also examined characteristics that newcomers bring with them into their new work roles as antecedents of proactive collaboration, as well as the influence of the organizational socialization context on newcomers’ creative processes. In essence, my proposed model offers a unique social process view of new employee creativity; one in which the newcomer is embedding herself into the social fabric of her new organization – proactively engaging

with organizational insiders via collaborative work experiences – in addition to being “acted upon” as a relatively passive recipient of the socialization context.

Because data collection is ongoing for this project, the study findings should be considered preliminary; however, they provide some early insight into the nature of the creative process in newcomers as they experience organizational socialization. In Study 1, I developed and validated a measure of employee proactive collaboration. Using multiple participant samples and following best practices in survey measure development, I found that my 11-item proactive collaboration measure demonstrated good psychometric properties and evidence of convergent and discriminant validity. In Study 2, I found support for my prediction that new employees’ proactive collaboration would be positively associated with subsequent creative process engagement. By measuring both constructs at two points in time, I was able to explore the viability of this temporal sequence against an alternative sequence in which creative process engagement led to later proactive collaboration. My results supported the original hypothesis that proactive collaboration seems to influence creative process engagement in new employees over time. I did not find support, however, for a positive relationship between new employees’ creative process engagement and their creative performance.

I found that the newcomer personality trait of curiosity significantly predicted proactive collaboration shortly after hire. On average, newcomers who are characteristically more curious tend to exhibit more proactive collaboration in their new jobs. I also predicted that being exposed to strong creative role models as an organizational socialization tactic would strengthen this positive relationship; however, I

did not find support for this person – situation interaction. Overall, the presence of creative role models did not emerge as a significant contextual moderator in my proposed model of newcomer creativity, as I also did not find support for the idea that creative role models would strengthen the positive relationship between proactive collaboration and creative process engagement.

I found partial support for the role of prior job creative role identity as an antecedent of creative processes in new employees. I had predicted that newcomers would rely on existing creative self-concepts, formed through the prior job experience, to guide their behavioral choices at their new jobs. The relationship between prior job creative role identity and new job proactive collaboration was in the expected positive direction, but was only marginally significant. I found a significant interaction between prior job creative role identity and the organization's use of investiture tactics, although the form of the interaction did not align with my predictions. I expected that investiture tactics would strengthen the positive relationship between newcomers' prior job creative role identity and their proactive collaboration. Instead, I found that divestiture tactics, the bipolar opposite of investiture tactics, strengthened this relationship.

Finally, I explored potential interactions between the other organizational socialization tactics and newcomers' creative process behaviors. In doing so, I found that the set of organizational socialization tactics that typically leave newcomers to fend for themselves to adjust – known as individualized tactics – had a strengthening effect on the positive relationship between proactive collaboration and creative process engagement.

II. Theoretical Contributions

My study offers several contributions to advancing theory about new employee creativity. First, I find that seeking collaborative experiences is a potentially important form of newcomer proactivity that acts as a catalyst for creative thinking early in the organizational entry period. While prior research on newcomer proactivity has centered on self-focused behaviors that facilitate newcomers' acquisition of the resources and support they need to successfully adjust (Ashford & Black, 1996), my study offers an alternative view of newcomer proactivity by identifying potential benefits of initiating the give and take that accompanies collaborative experiences. As organizations increasingly rely on employee collaboration to achieve work goals, understanding the role collaboration plays in organizational life is critical. Thus, this study sheds some light on one way in which creative thinking might begin in organizations – through agentic new employees who seek collaborations with more seasoned organizational insiders. A key benefit of proactive collaboration appears to be that it triggers more creative thinking (i.e., creative process engagement) in new employees. This finding provides some empirical support for extant theorizing about the potential employee-level outcomes of collaboration (e.g., Choi & Thompson, 2005; Nemeth & Goncalo, 2005).

However, I did not find support for a direct relationship between newcomers' creative process engagement and their creative performance. This finding contrasts with existing research that supports a positive relationship between creative process engagement and creative outcomes (e.g., Henker et al., 2014; Zhang & Bartol, 2010a, 2010b). Both theoretically and empirically, existing work points to a link between these

two constructs. There are several possible explanations for the lack of findings in this study. First, the available sample size for supervisor ratings of newcomer creative performance was small ($n = 71$) and a lack of statistical power may have precluded finding a statistically significant relationship. Collecting additional data will likely help identify whether the lack of relationship was due to statistical concerns. If the relationship between newcomer creative process engagement and creative performance remains nonsignificant after obtaining additional sample, it would suggest a compelling boundary condition to this relationship that has yet to be uncovered in existing research. There may be factors unique to the organizational entry context that weaken the link between creative thinking and creative performance in new employees. For example, evaluating creative ideas is inherently subjective, as the evaluator must determine whether the idea is both novel and useful in relation to a particular problem or domain. An emerging line of research suggests that people's evaluations of ideas as more or less creative are complex decisions and are susceptible to a number of biases (Mueller, Goncalo, & Kamdar, 2011; Mueller, Melwani, & Goncalo, 2012). Therefore, it is possible that, while newcomers may be engaging in a high degree of creative thinking in their early months on the job, the ideas they generate as a result of this process may be perceived by others (in this case, their supervisors) as less creative. Having been on the job for only six months, they (and, by extension, their ideas) may not yet be fully trusted by organizational insiders, hence their ideas were deemed less creative.

Factors stemming from the newcomer himself may also be relevant here. Creative process engagement is a within-person construct that reflects the degree to which an

employee is engaging in creative thinking and the behaviors that support it. However, although much may be happening in terms of creative thinking, perhaps newcomers are less inclined to verbalize or promote their ideas to others so early in their tenure. Thus, their supervisors may not yet have observed the outcomes of their creative thinking processes. Trust has been identified as an important antecedent of both creativity and successful new employee adjustment (e.g., Schaubroeck, Peng, & Hannah, 2012; Zhang & Zhou, 2014), and so to the extent that the newcomer has not fully developed feelings of trust towards her colleagues, she may choose to withhold creative ideas until that trust has occurred.

An additional contribution of my study is that it adds a needed person – situation perspective on newcomer creativity. From the person perspective, it appears that newcomers are indeed not blank slates upon entry, but rather bring with them characteristics and experiences that may motivate them to act in ways that support early-tenure creative thinking. For example, I found that curiosity, particularly the broader diversive form, was a significant predictor of proactive collaboration. This finding supports an emerging view of curiosity as an important individual difference that explains work behavior, particularly in organizational contexts that are highly uncertain and ambiguous, such as the socialization period (Harrison et al., 2011). It also advances the notion that curiosity has a social component. Prior theory and empirical work (Harrison & Rouse, 2014; Kashdan & Roberts, 2004) suggests that curiosity is a characteristic that motivates individuals to explore and connect with their social environments. This appears to be the case in the current study, as I found that highly curious newcomers are more

likely to reach out and initiate collaborative work experiences with organizational insiders.

Further supporting a person – situation focus on newcomer creativity, I also found that the organizational socialization context interacts with prior job creative role identity to influence creative behavior, albeit in a different form than I had predicted. On average, it is less clear in the current study whether newcomers' prior, established creative identity is associated with their creative behaviors at their new jobs. However, the organizational socialization context may play a role in whether newcomers draw upon their prior identities or not. In the current study, it appears that when an organization sends messages to newcomers to “act like we do”, i.e., uses divestiture socialization tactics, newcomers who enter their new organizations with strong existing creative identities are even more likely to proactively collaborate than when the organization indicates that they are free to “act as they are”, i.e., uses investiture socialization tactics. The measure of socialization tactics I used followed the conceptualization from Van Maanen and Schein (1979), in which the central focus is on *how* newcomers experience socialization. This framework, however, does not detail exactly *what* messages or content newcomers receive from the organization when they experience these tactics. Thus, one possible explanation for these results may be related to the culture of the site organization I used in this study and the content of the messages newcomers might be receiving. The site organization's strategy and culture are strongly focused on innovation and creativity. It may follow, then, that this particular organization's “act like we do” divestiture tactics involved sending pro-creativity messages to newcomers that actually affirmed the self-

concepts of those who held strong existing creative identities. This particular organization's form of divestiture tactics, then, may have compelled them to rely more heavily upon their creative identities and, as a result, motivated them to proactively collaborate in their new work roles.

III. Practical Implications

Given the investment of time and money required to adequately train and integrate new employees, organizations have a vested interest in ensuring that newcomers get “up and running” efficiently and effectively. Also, for organizations that view creativity and innovation as core to their business strategies, there is also the question of how to better facilitate new employee creativity. The results of this study offer practical insight into how this might be achieved. The results support prior theorizing and empirical work, outside of creativity contexts, that point to social integration as key to newcomers' successful socialization. While prior work has viewed social integration mainly in terms of receiving social support, securing friendships with colleagues, and getting to know one's boss (Ashford & Black, 1996), my study suggests that a more work-focused form of social proactivity promotes creative thinking in newcomers. Therefore, to encourage creativity in new employees, organizations might structure socialization experiences in ways that encourage the give and take of collaborative work and problem solving between newcomers and insiders.

The findings supportive of person – situation interactions as newcomer creativity unfolds also suggest that organizations desiring creativity might benefit from avoiding a “one size fits all” approach to socialization. If creativity is desired, organizations might

select new employees who exhibit characteristics that, on average, are more likely to result in creativity. However, creativity may be further enhanced by fitting socialization experiences to newcomers' existing concepts of themselves as creative workers. Further, while existing research on organizational socialization tactics has mainly supported the use of more structured, institutionalized tactics for facilitating newcomer adjustment and desirable work outcomes (Kim, Cable, & Kim, 2005), the results of this study point to a potentially important role for more individualized tactics when seeking to encourage newcomer creativity. Although more research is needed, it appears that less structured, more individualized socialization may enhance newcomer creative process engagement to a greater extent than highly structured, controlled socialization experiences.

IV. Limitations and Future Research Directions

This study has limitations that must be acknowledged. First, I conducted this study in an organization where the sample I obtained was not very diverse; e.g., nearly all of the study participants were white. Research suggests that diversity is an important consideration when seeking to understand both creativity (e.g., Chua, 2013; Shin, Kim, Lee, & Bian, 2012) and the organizational socialization process (Kammeyer-Mueller et al., 2011). Therefore, the results of this study may not generalize to contexts in which new employees are more ethnically diverse or where education levels vary. Future research should integrate diversity concepts into theoretical models of newcomer creativity, as there may be processes closely linked to diversity (e.g., trust, perceptions of inclusion) that may play a role in facilitating or discouraging newcomers' creativity, or their reactions to socialization experiences. There may also be limits to generalizability at

the organizational level. The organization I used in this study has a strong value for creativity and innovation. Newcomer creativity, however, may unfold differently in organizations where creativity and innovation are less central to the organization's core business processes. This presents an opportunity for future research to consider how organizational culture plays a role in newcomer creativity.

Another potential limitation of this study that is related to my choice of participant sample is that I did not compare the results I found in my newcomer sample with a sample of longer tenured employees. Although the socialization context is unique to new employees, the process model of creativity I proposed could also be relevant for longer tenured employees. Having a comparison sample of organizational insiders could lend insight into the finding that creative process engagement did not predict creative performance. As mentioned previously, there may be factors unique to the organizational entry period that explains why this relationship was not supported.

I found only a marginally significant main effect for the relationship between newcomers' prior job creative role identity and proactive collaboration. Although I measured this construct shortly after hire (the average tenure was less than two weeks), it is possible that I was not able to cleanly measure prior job creative role identity after participants had already started their new jobs. Clearly, this would be a significant challenge to achieve, given difficulties in finding a sample of newcomers while they were still at their old jobs; however, with the right research design, perhaps these relationships would emerge more clearly.

The results of this study point to additional opportunities for future research. This study is the first to position proactive collaboration as a work-focused, social form of employee proactivity that triggers creative thinking in newcomers. Given the support I found for this relationship, future research should examine the nuances of this connection more closely. For example, while my study results suggest that taking initiative to involve oneself in collaborative experiences benefits creative thinking, it would be valuable to better understand the mechanisms explaining this relationship. By initiating collaborations, new employees may not only be exposing themselves to work experiences that provide “grist” for their “creative mills”, but the act of reaching out proactively to organizational insiders might help build their reputations within their new organizations, thus more quickly positioning themselves within the organizational social network in ways that facilitates their creativity (Morrison, 2002; Perry-Smith, 2014). There may also be important boundary conditions to consider. It is likely that not all newcomers who proactively seek out collaborations with insiders are able to successfully gain those experiences. Currently, there is a paucity of research that examines how organizational insiders perceive new employees and how they behave towards them. If organizational insiders do not fully trust the newcomer, they may choose to withhold potentially creativity-relevant knowledge and information (Cerne, Nerstad, Dysvik, & Škerlavaj, 2014) during the resulting collaboration. Or, they may reject the newcomer’s advances and refuse to collaborate altogether. To better understand how and when proactive collaboration results in higher-quality creative thinking, future research should consider such possibilities.

Finally, the exploratory findings from Research Question 1 support the idea that proactive collaboration influences creative process engagement over time, rather than vice versa. However, with a field-based survey design, I cannot be completely assured of the causal sequence of these variables, due to the possibility of alternative explanations for the results (Shadish, Cook, & Campbell, 2002). Future research should examine the nature of the relationship between proactive collaboration and creative process engagement using experimental designs that can provide stronger evidence of the causal relationship.

Table 1
Study 1: Substantive Validity Results for Proactive Collaboration Scale

Item	P_{sa}	C_{sv}
1. I looked for opportunities to collaborate with people at work. ^a	.96	.91
2. I made an effort to collaborate with my colleagues on work-related issues. ^a	.96	.91
3. I sought out others in my organization so that we could “put our heads together” on a task or problem. ^a	.96	.91
4. I invited people in my organization to collaborate with me on work tasks. ^a	.96	.91
5. I let people in this organization know that I am open to collaborating. ^a	.96	.91
6. I looked for opportunities to team up with others in order to get work done. ^a	.96	.91
7. I started conversations with people at work so that we might work together on a task or problem. ^a	.91	.83
8. I made an effort to exchange work-related ideas with people from different areas of the company. ^a	.91	.87
9. I encouraged my colleagues to share their ideas with me. ^a	.91	.83
10. I reached out to people at work that I might want to collaborate with in the future. ^a	.91	.87
11. I took initiative to exchange information with people at work. ^a	.87	.78
12. I acted in ways that increased my chances of being involved in collaborative work in my organization.	.78	.65
13. I looked for opportunities to “think together” with people at work.	.78	.57
14. I made myself available to my colleagues in case they wanted to work together.	.74	.61
15. I suggested alternative ways of thinking about work problems to my co-workers.	.48	.04

Note: P_{sa} is calculated as n_c/N , where n_c = number of judges assigning the item to the correct category, and N = total number of judges. C_{sv} is calculated as $(n_c - n_o)/N$, where n_o = the highest number of times the item was assigned to other than the intended construct; n_c and N are defined as before.

^aRetained item based on cutoff threshold of .75 for both substantive validity coefficients. $N = 23$.

Table 2
Study 1: Exploratory Factor Analysis Results for Proactive Collaboration Scale

Item	Factor Loading
1. I looked for opportunities to collaborate with people at work.	.90
2. I made an effort to collaborate with my colleagues on work-related issues.	.87
3. I invited people in my organization to collaborate with me on work tasks.	.86
4. I looked for opportunities to team up with others in order to get work done.	.85
5. I started conversations with people at work so that we might work together on a task or problem.	.83
6. I reached out to people at work that I might want to collaborate with in the future.	.83
7. I let people in this organization know that I am open to collaborating.	.82
8. I encouraged my colleagues to share their ideas with me.	.82
9. I sought out others in my organization so that we could “put our heads together” on a task or problem.	.81
10. I took initiative to exchange information with people at work.	.81
11. I made an effort to exchange work-related ideas with people from different areas of the company.	.77

Note: Principal axis extraction.
 N = 137.

Table 3

Study 1: Means, Standard Deviations, and Correlations for Proactive Collaboration Scale and Related Variables

Variable	M	s.d.	1	2	3	4	5	6	7	8	9
1. Proactive collaboration	3.33	0.95	(.95)								
2. Creative process engagement	3.53	0.68	.60**	(.92)							
3. Feedback seeking	2.92	1.08	.46**	.37**	(.93)						
4. General socializing	2.53	1.27	.42**	.33**	.47**	(.94)					
5. Relationship building - boss	2.81	1.03	.44**	.35**	.72**	.51**	(.85)				
6. Networking	2.68	1.07	.50**	.38**	.49**	.64**	.60**	(.89)			
7. Extraversion	2.76	0.99	.20*	.21*	.08	.33**	.20*	.34**	(.85)		
8. Agreeableness	3.68	0.91	.30**	.27**	.19*	.19*	.20*	.33**	.37**	(.86)	
9. Conscientiousness	3.61	0.86	.10	.07	.08	.10	.15	.06	.01	.12	(.76)
10. Neuroticism	2.38	0.90	-.11	-.21*	.01	-.04	-.05	-.09	-.15	-.12	-.35**
11. Openness to experience	3.97	0.83	.17*	.26**	.05	.03	.06	-.03	.12	.25*	.20*
12. Proactive personality	3.68	0.68	.46**	.54**	.27**	.29**	.29**	.29**	.30**	.30**	.29**
13. Job tenure	4.46	3.80	.06	.09	-.03	-.12	.02	.04	-.01	-.01	.20*
14. Job level ^a	0.41	0.49	.10	-.01	.05	.05	.01	.13	.08	-.07	.09
15. Education ^b	0.64	0.48	.04	.02	.10	.12	.00	.02	-.05	.04	.12
16. Gender ^c	0.56	0.50	-.10	-.01	.12	-.01	.10	.00	-.03	-.25*	.04
17. Age	31.14	7.37	-.02	-.06	-.10	-.22*	-.11	-.18*	-.14	.05	.18*

Note. Pairwise n ranges from 131 to 138. * $p < .05$; ** $p < .01$. Coefficient alpha reliability is in parentheses where relevant.

^a0 = individual contributor, 1 = supervisory responsibility

^b0 = less than undergraduate degree, 1 = undergraduate degree or higher

^c0 = female, 1 = male

Table 3

Study 1: Means, Standard Deviations, and Correlations for Proactive Collaboration Scale and Related Variables (continued)

Variable	10	11	12	13	14	15	16	17
1. Proactive collaboration								
2. Creative process engagement								
3. Feedback seeking								
4. General socializing								
5. Relationship building - boss								
6. Networking								
7. Extraversion								
8. Agreeableness								
9. Conscientiousness								
10. Neuroticism	(.82)							
11. Openness to experience	-.21*	(.81)						
12. Proactive personality	-.28**	.39**	(.90)					
13. Job tenure	-.16	.01	.05	n.a.				
14. Job level ^a	-.08	-.14	-.04	.31**	n.a.			
15. Education ^b	-.04	-.03	-.04	-.18*	-.02	n.a.		
16. Gender ^c	-.16	-.02	.05	-.04	-.05	.04	n.a.	
17. Age	-.05	.03	-.08	.53**	.23**	.00	-.14	

Note. Pairwise n ranges from 131 to 138. * $p < .05$; ** $p < .01$. Coefficient alpha reliability is in parentheses where relevant.

^a0 = individual contributor, 1 = supervisory responsibility

^b0 = less than undergraduate degree, 1 = undergraduate degree or higher

^c0 = female, 1 = male

Table 4
Study 2: Descriptive Statistics, Reliability, and Correlations

Variables	M	s.d.	1	2	3	4	5	6	7	8	9	10
1. Gender ^a	0.53	0.50	n.a.									
2. Age (years)	29.86	7.97	-.04	n.a.								
3. Race ^b	0.92	0.28	.08	-.09	n.a.							
4. Education ^c	0.97	0.18	.01	-.11	.11	n.a.						
5. Work experience (years)	7.05	7.56	-.06	.91**	.00	-.22*	n.a.					
6. Job level ^d	0.10	0.30	-.13	.04	-.10	-.09	.13	n.a.				
7. New job tenure (weeks)	1.92	1.67	.06	.22*	-.11	-.17	.16	.05	n.a.			
8. Proactive personality	3.83	0.44	-.14	.09	.05	.01	.13	.07	.07	(.79)		
9. Curiosity (specific)	3.51	0.62	.10	-.13	-.04	.00	-.18	-.06	-.06	-.06	.37**	(.68)
10. Task interdependence	5.42	0.98	-.19	.07	.09	.13	.04	.04	-.03	.24*	.25*	(.80)
11. Task performance	4.56	0.46	-.10	-.27*	.11	.34**	-.19	-.08	.04	-.02	-.13	.03
12. Curiosity (diversive)	4.38	0.49	.01	.13	-.01	-.20**	.04	-.05	.14	.43**	.35**	.22*
13. Prior job creative role identity	3.70	0.85	-.05	.20*	.09	.04	.12	.02	-.06	.42**	.33**	.24*
14. Investiture socialization tactics	4.46	0.91	-.06	.03	.09	-.06	.05	.04	.00	-.02	-.08	.10
15. Presence of creative role models	5.52	1.17	.11	.00	-.07	-.12	-.02	-.02	-.01	-.03	.03	.07
16. Proactive collaboration (Time 2)	4.00	0.61	-.18	.10	.01	.13	.12	.10	-.15	.33*	.11	.22*
17. Proactive collaboration (Time 3)	3.99	0.67	-.25*	.07	.04	.04	.05	.04	.07	.35**	.22*	.40**
18. Creative process engagement (Time 2)	3.84	0.55	-.23*	.13	.02	.13	.10	-.01	-.06	.47**	.36**	.24*
19. Creative process engagement (Time 3)	3.86	0.55	-.28**	-.02	.05	-.07	-.04	.00	-.11	.39**	.47**	.31**
20. Creative performance (Time 4)	3.88	0.65	-.01	.13	.06	.15	.22	.06	.05	.10	-.08	.24

Note. Pairwise N ranges from 62 to 118. * $p < .05$; ** $p < .01$. Coefficient alpha reliability is in parentheses where relevant.

^a 0 = female, 1 = male

^b 0 = non-white, 1 = white

^c 0 = less than bachelor's degree, 1 = bachelor's degree or higher

^d 0 = no supervisory responsibility 1 = supervisory responsibility

Table 4
Study 2: Descriptive Statistics, Reliability, and Correlations (continued)

Variables	M	s.d.	11	12	13	14	15	16	17	18	19	20
1. Gender ^a	0.53	0.50										
2. Age (years)	29.86	7.97										
3. Race ^b	0.92	0.28										
4. Education ^c	0.97	0.18										
5. Work experience (years)	7.05	7.56										
6. Job level ^d	0.10	0.30										
7. New job tenure (weeks)	1.92	1.67										
8. Proactive personality	3.83	0.44										
9. Curiosity (specific)	3.51	0.62										
10. Task interdependence	5.42	0.98										
11. Task performance	4.56	0.46	(.87)									
12. Curiosity (diversive)	4.38	0.49	-.14	(.80)								
13. Prior job creative role identity	3.70	0.85	-.05	.31**	(.90)							
14. Investiture socialization tactics	4.46	0.91	.08	.08	-.03	(.61)						
15. Presence of creative role models	5.52	1.17	-.11	.22*	.14	.30**	(.94)					
16. Proactive collaboration (Time 2)	4.00	0.61	.02	.32**	.33**	-.07	.35**	(.90)				
17. Proactive collaboration (Time 3)	3.99	0.67	-.06	.28*	.28**	.08	.22*	.65**	(.93)			
18. Creative process engagement (Time 2)	3.84	0.55	-.05	.46**	.53**	.05	.28**	.56**	.43**	(.87)		
19. Creative process engagement (Time 3)	3.86	0.55	-.28*	.36**	.36**	-.01	.19	.51**	.54**	.72**	(.88)	
20. Creative performance (Time 4)	3.88	0.65	.42**	-.08	-.01	-.03	-.07	.14	.01	.15	-.09	(.95)

Note. Pairwise N ranges from 62 to 118. * $p < .05$; ** $p < .01$. Coefficient alpha reliabilities are reported in parentheses along the diagonal.

^a 0 = female, 1 = male

^b 0 = non-white, 1 = white

^c 0 = less than bachelor's degree, 1 = bachelor's degree or higher

^d 0 = no supervisory responsibility 1 = supervisory responsibility

Table 5
Study 2: Fit Indices for Hypothesized Model and Alternative Models

Model	χ^2	df	χ^2/df	CFI	RMSEA	SRMR	AIC
Hypothesized model	33.93	29	1.17	.98	.04	.05	1949.49
Alternative model 1: Direct paths added from curiosity and prior job creative role identity to creative performance	33.28	27	1.23	.98	.04	.05	1952.84
Alternative model 2: Direct paths added from curiosity and prior job creative role identity to creative process engagement	33.71	27	1.25	.98	.05	.05	1953.27
Research question 1: Cross-lagged relationships between proactive collaboration and creative process engagement	125.42	64	1.96	.89	.09	.08	2583.15

Note. N = 118. Control variables were included in models.

Table 6
Study 2: Path Coefficients for Hypothesized Model

	Proactive Collaboration	Creative Process Engagement	Creative Performance
<i>Control variables</i>			
New job tenure	-.27*	.05	.11
Proactive personality	.22	-.03	.11
Curiosity (specific)	-.29 ⁺	.48**	-.23
Task interdependence	.14	.10	.32*
Task performance	.03	-.22 ⁺	.41**
Curiosity (diversive)	.29*		
Prior job creative role identity	.20 ⁺		
Proactive collaboration		.53**	
Creative process engagement			.02
<i>R</i> ²	.34**	.68**	.33**

Note. N = 118. Coefficients are standardized. ⁺*p* < .10; **p* < .05; ***p* < .01.

Table 7

Study 2: Results of Moderated Hierarchical Regression Analyses for Hypothesized Interactions

	Proactive Collaboration	Proactive Collaboration	Creative Process Engagement	Creative Process Engagement
<i>Control variables</i>				
New job tenure	-.19 ⁺	-.19 ⁺	.04	.06
Proactive personality	.24**	.21*	.09	.07
Curiosity (specific)	-.15	-.17 ⁺	.31**	.30**
Task interdependence	.11	.14	.12	.13
Task performance	.13	.15	-.22*	-.25*
Investiture socialization tactics	-.23**	-.18*		
Presence of creative role models	.38**	.39**	.02	.04
<i>Independent variables</i>				
Curiosity (diversive)	.18 ⁺	.16*		
Prior job creative role identity	.13	.15		
Proactive collaboration			.41**	.42**
<i>Interactions</i>				
Prior job creative role identity x Investiture socialization tactics		-.24**		
Curiosity x Presence of creative role models		.07		
Prior job creative role identity x Presence of creative role models		-.02		
Proactive collaboration x Presence of creative role models				.01
<i>R</i> ²	.36**	.41**	.47**	.48**

Note. N = 118. Coefficients are standardized. ⁺*p* < .10; **p* < .05; ***p* < .01.

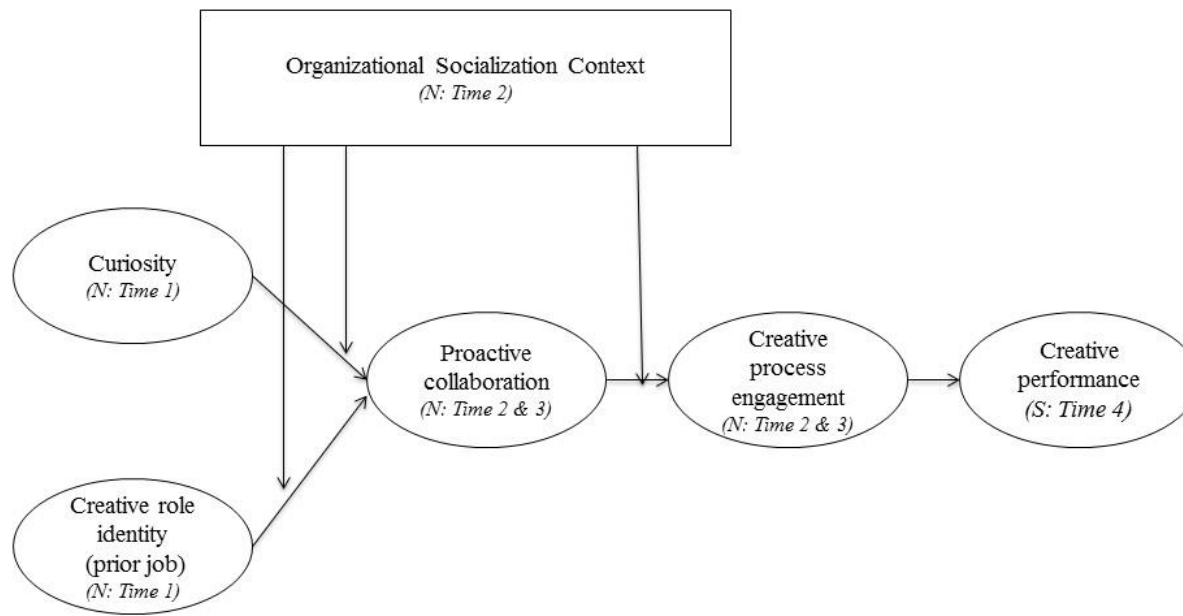
Table 8

Study 2: Results of Moderated Hierarchical Regression Analyses for Research Question 2

	Proactive Collaboration	Proactive Collaboration	Creative Process Engagement	Creative Process Engagement
<i>Control variables</i>				
New job tenure	-.20 ⁺	-.19	.03	.05
Proactive personality	.18 ⁺	.18 ⁺	.09	.09
Curiosity (specific)	-.14	-.13	.29**	.29**
Task interdependence	.08	.08	.13 ⁺	.16*
Task performance	.08	.11	-.25**	-.28**
Institutionalized socialization tactics	.10	.09	.10	.08
<i>Independent variables</i>				
Curiosity (diversive)	.24*	.23*		
Prior job creative role identity	.20*	.20*		
Proactive collaboration			.41**	.40**
<i>Interactions</i>				
Prior job creative role identity x Institutionalized socialization tactics		-.10		
Curiosity x Institutionalized socialization tactics		.03		
Proactive collaboration x Institutionalized socialization tactics				-.16*
<i>R</i> ²	.24**	.25**	.49**	.51**

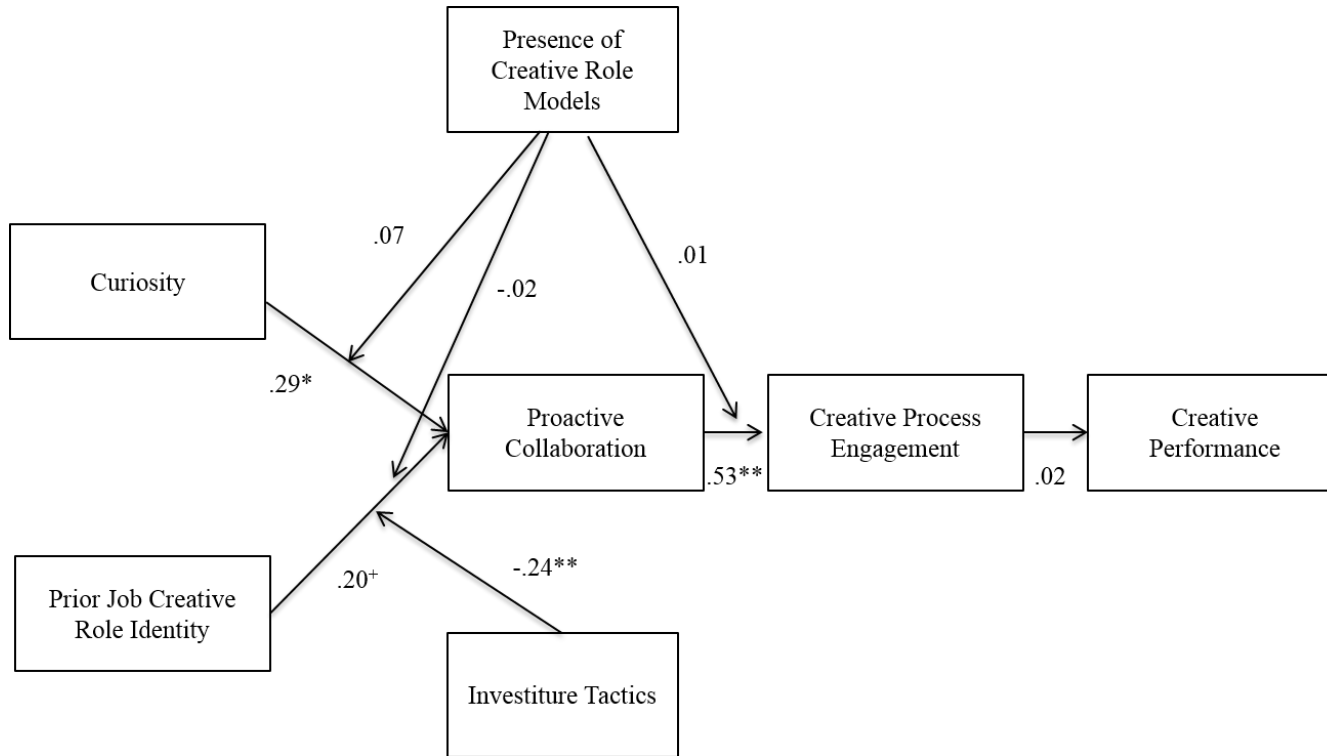
Note. N = 118. Coefficients are standardized. ⁺*p* < .10; **p* < .05; ***p* < .01.

Figure 1
Conceptual Model of Newcomer Creative Performance



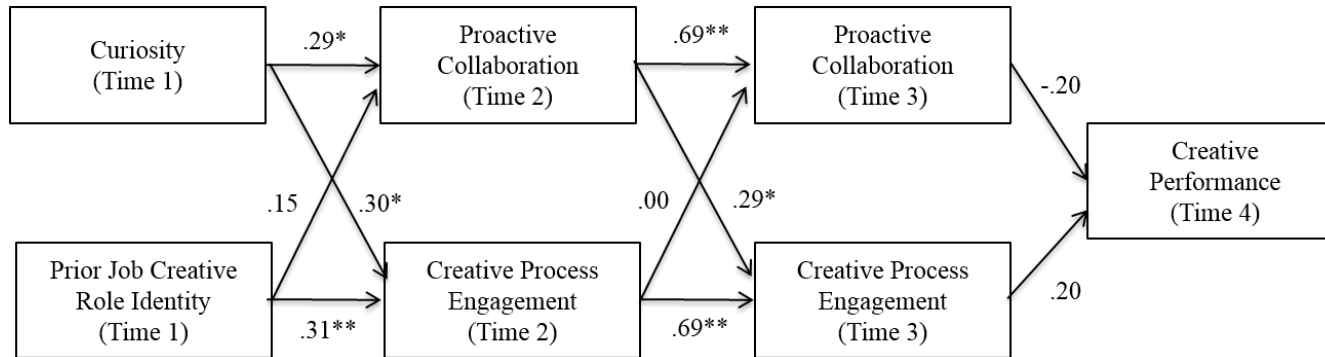
N: Newcomer-rated; S: Supervisor-rated
Time 1 = entry; Time 2 = 3 mo.; Time 3 = 4 mo.; Time 4 = 6 mo.

Figure 2
Study 2: Results for Hypothesized Model



Note. + $p < .10$; * $p < .05$; ** $p < .01$. Control variables were included, but are not displayed for ease of presentation

Figure 3
 Study 2: Results for Research Question 1



Note. + $p < .10$; * $p < .05$; ** $p < .01$. Control variables were included, but are not displayed for ease of presentation.

Figure 4
Study 2: Moderating Effects of Investiture Organizational Socialization Tactics on the Prior Job Creative Role Identity – Proactive Collaboration Relationship

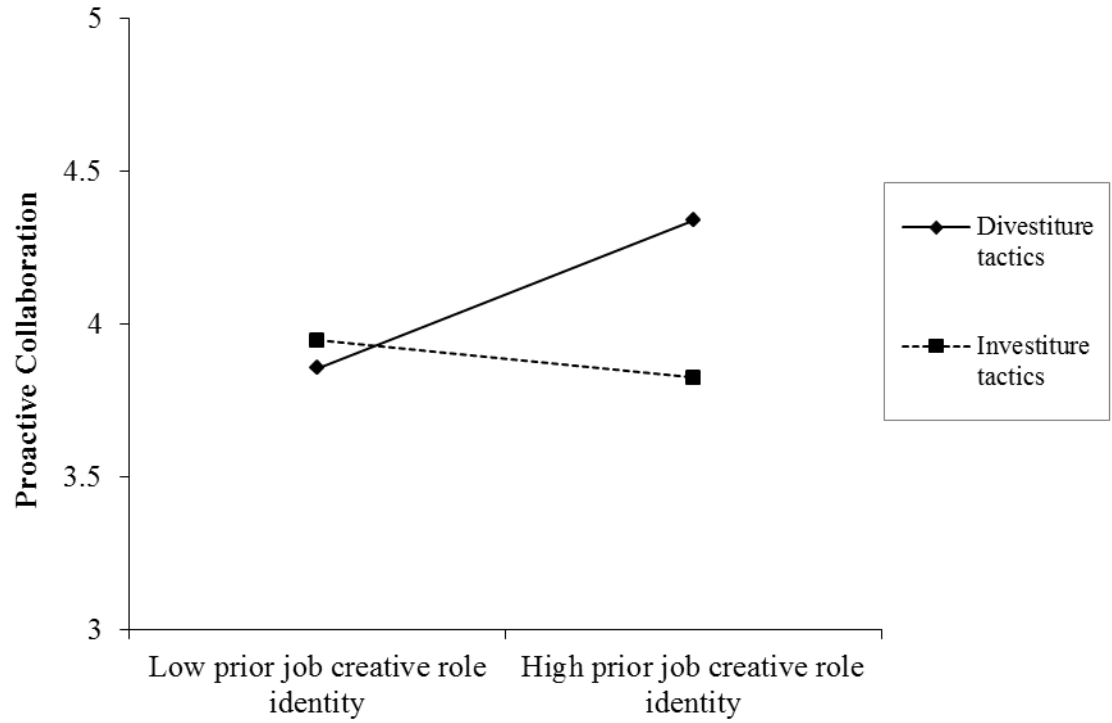
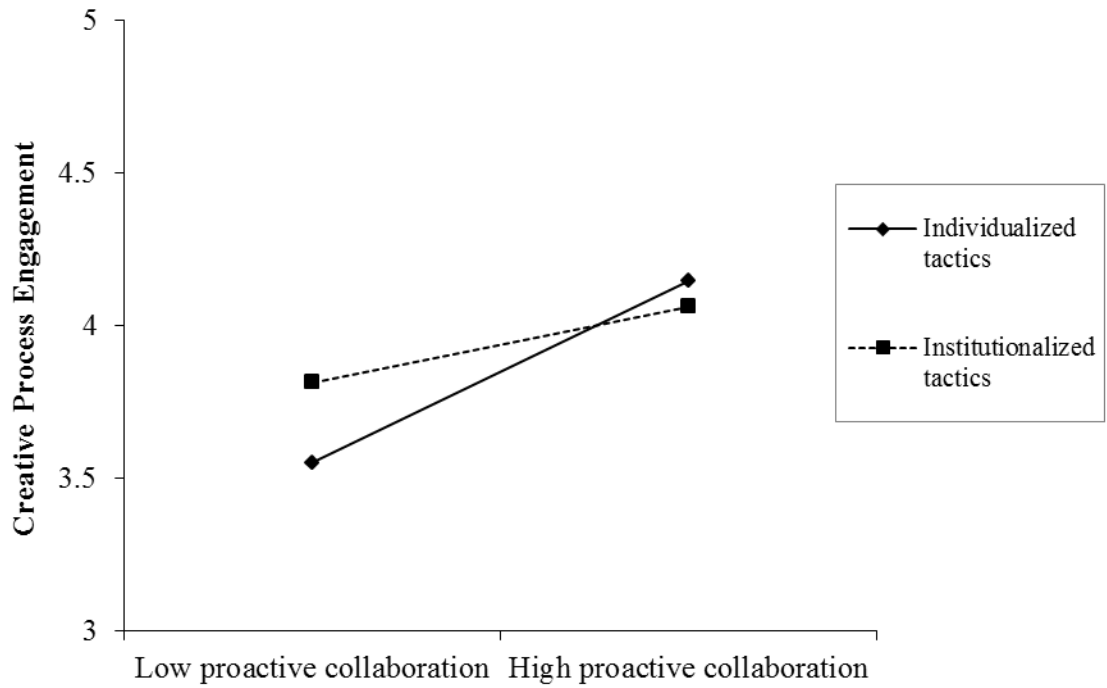


Figure 5
Study 2, Research Question 2: Moderating Effects of Institutionalized Organizational Socialization Tactics on the Proactive Collaboration – Creative Process Engagement Relationship



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Appendix I: New Employee Survey Items

New Job Information and Participant Demographics (Time 1)

1. Which one of the following best describes your level of responsibility at your new job?
 - 1) Individual contributor (no supervisory responsibility)
 - 2) First level management (you have some direct reports)
 - 3) Second level management (your direct reports have direct reports)

2. What was your official start date? Please click on a date in the calendar below.
[calendar displayed]

3. What is your gender?
 - 1) Male
 - 2) Female

4. What is your age? Please type your answer in the space below.
_____ years

5. What is your race? Please select all that apply.
 - 1) Asian
 - 2) American Indian/Alaskan Native
 - 3) Black/African-American
 - 4) Hispanic/Latino
 - 5) Native Hawaiian/Pacific Islander
 - 6) White (non-Hispanic)
 - 7) Other
 - 8) I prefer not to answer

6. Which one of the following describes the highest level of education you have completed?
- 1) Did not graduate high school
 - 2) High school diploma or equivalent
 - 3) Some undergraduate college courses
 - 4) Associates degree
 - 5) Undergraduate degree (e.g., Bachelors)
 - 6) Some graduate courses
 - 7) Graduate degree (e.g., Masters, MBA, Doctorate)
7. How many years/months of professional work experience do you have? Please type your answer in the space below.
- ___years ___months

Prior Job Creative Role Identity (Time 1)

8. How strongly do you agree or disagree that the statements below describe how you thought about yourself in your previous job role?
- (1=Strongly Disagree; 2=Disagree; 3=Neither Agree nor Disagree; 4=Agree
5=Strongly Agree)*
- 1) I often thought of myself as creative.
 - 2) I had a clear concept of myself as a creative employee.
 - 3) For me, being creative meant more than just offering new and valuable ideas.
 - 4) I would have felt a loss if I had been forced to give up being creative.
 - 5) Being a creative employee was an important part of my identity.

Curiosity (Diversive) (Time 1)

9. How strongly do you agree or disagree with the statements below as they describe you in general?

*(1=Strongly Disagree; 2=Disagree; 3=Neither Agree nor Disagree; 4=Agree
5=Strongly Agree)*

- 1) I enjoy exploring new ideas.
- 2) I enjoy learning about subjects that are unfamiliar to me.
- 3) I find it fascinating to learn new information.
- 4) When I learn something new, I like to find out more about it.
- 5) I enjoy discussing abstract concepts.

Curiosity (Specific) (Time 1)

10. How strongly do you agree or disagree with the statements below as they describe you in general?

*(1=Strongly Disagree; 2=Disagree; 3=Neither Agree nor Disagree; 4=Agree
5=Strongly Agree)*

- 1) I can spend hours on a single problem because I just can't rest without knowing the answer.
- 2) Conceptual problems keep me awake thinking about solutions.
- 3) I get frustrated if I cannot figure out a problem, so I work even harder.
- 4) I work like a fiend at problems that I feel must be solved.
- 5) I brood for a long time in an attempt to solve some fundamental problem.

Proactive Personality (Time 1)

11. How strongly do you agree or disagree with the following statements?

*(1=Strongly Disagree; 2=Disagree; 3=Neither Agree nor Disagree; 4=Agree
5=Strongly Agree)*

- 1) I am constantly on the lookout for new ways to improve my life.
- 2) Wherever I have been, I have been a powerful force for constructive change.
- 3) Nothing is more exciting than seeing my ideas turn into reality.
- 4) If I see something I don't like, I fix it.
- 5) No matter what the odds, if I believe in something I will make it happen.
- 6) I love being a champion for my ideas, even against others' opposition.
- 7) I excel at identifying opportunities.

- 8) I am always looking for better ways to do things.
- 9) If I believe in an idea, no obstacle will prevent me from making it happen.
- 10) I can spot a good opportunity long before others can.

Proactive Collaboration (Time 2, Time 3)

12. To what extent have you engaged in the following behaviors at work [*since you started your new job/in the past month*]? When answering, please think about your behavior in both formal work situations (e.g., scheduled meetings) as well as more informal work situations (e.g., casual interactions).

(1=*To No Extent*; 2=*To Little Extent*; 3=*To Some Extent*; 4=*To a Moderate Extent*; 5=*To a Great Extent*)

- 1) I looked for opportunities to collaborate with people at work.
- 2) I made an effort to collaborate with my colleagues on work-related issues.
- 3) I sought out others in my organization so that we could “put our heads together” on a task or problem.
- 4) I invited people in my organization to collaborate with me on work tasks.
- 5) I let people in this organization know that I am open to collaborating.
- 6) I looked for opportunities to team up with others in order to get work done.
- 7) I started conversations with people at work so that we might work together on a task or problem.
- 8) I made an effort to exchange work-related ideas with people from different areas of the company.
- 9) I encouraged my colleagues to share their ideas with me.
- 10) I reached out to people at work who I might want to collaborate with in the future.
- 11) I took initiative to exchange information with people at work.

Creative Process Engagement (Time 2, Time 3)

13. *[Since starting your new job/In the past month]*, how often have you acted in the following ways when seeking to accomplish assignments or solve problems?

(1=Never; 2=Rarely; 3=Occasionally; 4=Frequently; 5=Very Frequently)

- 1) I spent considerable time trying to understand the nature of the assignments/problems.
- 2) I thought about assignments/problems from multiple perspectives.
- 3) I decomposed difficult problems/assignments into parts to obtain greater understanding.
- 4) I consulted a wide variety of information.
- 5) I searched for information from multiple sources (e.g., personal memories, others' experience, documentation, Internet).
- 6) I retained large amounts of detailed information in my area of expertise for future use.
- 7) I considered diverse sources of information in generating new ideas.
- 8) I looked for connections with solutions used in seemingly diverse areas.
- 9) I generated a significant number of alternatives to the same problem before I chose the final solution.
- 10) I tried to devise potential solutions that move away from established ways of doing things.
- 11) I spent considerable time sifting through information that helped to generate new ideas.

Presence of Creative Role Models (Time 2)

14. How strongly do you agree or disagree with the following statements about your co-workers, or people in this organization you have worked closely with since you started this job?

(1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Neither Agree nor Disagree; 5=Slightly Agree; 6=Agree; 7=Strongly Agree)

- 1) I have often seen my co-workers display creative behaviors at work.
- 2) My co-workers have been role models for creative behavior at work.
- 3) Observing my co-workers since I have joined this organization has provided me with a good source of creative ideas.

Organizational Socialization Tactics (Time 2)

15. How strongly do you agree or disagree with the following statements as they describe your division where you work in general?

(1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Neither Agree nor Disagree; 5=Slightly Agree; 6=Agree; 7=Strongly Agree)

**reverse-coded*

- 1) I have been made to feel that my skills and abilities are very important in this division.
- 2) Almost all of my colleagues have been supportive of me personally.
- 3) I have had to change my attitudes and values to be accepted in this division.*
- 4) My colleagues have gone out of their way to help me adjust to this division.
- 5) I feel that experienced division members have held me at a distance until I conform to their expectations.*
- 6) This division does not try to change the values and beliefs of newcomers.
- 7) Certain behaviors and attitudes of newcomers are not considered acceptable in this division.*
- 8) The following statement describes the attitude in this division toward newcomers: "We like you as you are; don't change".
- 9) In this division, you must "pay your dues" before you are fully accepted.*
- 10) Newcomers in this division are made to feel that they still have a lot to learn.*
- 11) Since starting this job, I have been extensively involved with other new recruits in this division in common, job related training activities.
- 12) Other newcomers in my division have been instrumental in helping me to understand my job requirements.
- 13) This division puts all newcomers through the same set of learning experiences.
- 14) Most of my training has been carried out apart from other newcomers in my division.*
- 15) There is a sense of "being in the same boat" amongst newcomers in this division.
- 16) I have been through a set of training experiences in this division which are specifically designed to give newcomers a thorough knowledge of job related skills.
- 17) During my training for this job I was normally physically apart from regular organizational members in this division.
- 18) I did not perform any of my normal job responsibilities until I was thoroughly familiar with division procedures and work methods.
- 19) Much of my job knowledge has been acquired informally on a trial and error basis in this division.*
- 20) I have been very aware that I am "learning the ropes" in this division.
- 21) There is a clear pattern in the way one role leads to another or one job assignment

- leads to another in this division.
- 22) Each stage of the training process in this division has, and will, expand and build upon the job knowledge gained during the preceding stages of the process.
 - 23) The movement from role to role and function to function to build up experience and a track record is very apparent in this division.
 - 24) This division does not put newcomers through an identifiable sequence of learning experiences.*
 - 25) The steps in the career ladder are clearly specified in this division.
 - 26) Experienced organizational members see advising or training newcomers as one of their main job responsibilities in this division.
 - 27) I am gaining a clear understanding of my role in this division from observing my senior colleagues.
 - 28) I have received little guidance from experienced organizational members in this division as to how I should perform my job.*
 - 29) I have little to no access to people in this division who have previously performed my role.*
 - 30) I have been generally left alone to discover what my role should be in this division.*
 - 31) I can predict my future career path in this division by observing other peoples' experiences.
 - 32) I have a good knowledge of the time it will take me to go through the various stages of the training process in this division.
 - 33) The way in which my progress through this division will follow a fixed timetable of events has been clearly communicated to me.
 - 34) I have little idea when to expect a new job assignment or training exercise in this division.*
 - 35) Most of my knowledge of what may happen to me in the future comes from informally, through the grapevine, rather than through regular division channels.*

Task Interdependence (Time 3)

16. How strongly do you agree or disagree that the statements below describe your job in general?

(1=Strongly Disagree; 2=Disagree; 3=Slightly Disagree; 4=Neither Agree nor Disagree; 5=Slightly Agree; 6=Agree; 7=Strongly Agree)

**reverse-coded*

- 1) I have to obtain information and advice from my colleagues in order to complete my work.
- 2) I depend on my colleagues for the completion of my work.
- 3) I have a one-person job; I rarely have to check or work with others.*
- 4) I have to work closely with my colleagues to do my work properly.
- 5) In order to complete their work, my colleagues have to obtain information and advice from me.

Appendix II: Supervisor Survey Items

Demographic Information (Time 4)

1. What is your gender?
 - 1) Male
 - 2) Female

2. What is your age? Please type a number in the space below.
_____ years

3. What is your race? Please select all that apply.
 - 1) Asian
 - 2) American Indian/Alaskan Native
 - 3) Black/African-American
 - 4) Hispanic/Latino
 - 5) Native Hawaiian/Pacific Islander
 - 6) White (non-Hispanic)
 - 7) Other
 - 8) I prefer not to answer

4. Which one of the following describes the highest level of education you have completed?
 - 1) Did not graduate high school
 - 2) High school diploma or equivalent
 - 3) Some undergraduate college courses
 - 4) Associates degree
 - 5) Undergraduate degree (e.g., Bachelors)
 - 6) Some graduate courses
 - 7) Graduate degree (e.g., Masters, MBA, Doctorate)

5. How many years/months of professional work experience do you have? Please type your answer in the space below.
____years ____months

Creative Performance (Time 4)

6. How characteristic are each of the statements below of *[insert new hire participant name]*?

(1=Not at All Characteristic; 2=Not Very Characteristic; 3=Somewhat Characteristic; 4=Characteristic; 5=Very Characteristic)

- 1) Suggests new ways to achieve goals and objectives.
- 2) Comes up with new and practical ideas to improve performance.
- 3) Searches out new technologies, processes, techniques, and/or product ideas.
- 4) Suggests new ways to increase quality.
- 5) Is a good source for creative ideas.
- 6) Is not afraid to take risks.
- 7) Promotes and champions ideas to others.
- 8) Exhibits creativity on the job when given the opportunity.
- 9) Develops adequate plans and schedules for the implementation of new ideas.
- 10) Often has new and innovative ideas.
- 11) Comes up with creative solutions to problems.
- 12) Often has a fresh approach to problems.
- 13) Suggests new ways of performing work tasks.

Task Performance (Time 4)

7. How strongly you agree or disagree that the following statements describe *[insert new hire participant name]*?

(1=Strongly Disagree; 2=Disagree; 3=Neither Agree nor Disagree; 4=Agree; 5=Strongly Agree)

**reverse scored*

- 1) Adequately completes assigned duties.
- 2) Fulfills responsibilities specified in job description.
- 3) Performs tasks that are expected of him/her.
- 4) Meets formal performance requirements of the job.
- 5) Engages in activities that will directly affect his/her performance evaluation.
- 6) Neglects aspects of the job he/she is obligated to perform.*
- 7) Fails to perform essential duties.*