The Future of Socialization: Linking Socialization to Employee Engagement

Alexander Michael DeChurch

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The Future of Socialization: Linking Socialization to Employee Engagement.

by

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A dissertation submitted to the College of Psychology and Liberal Arts of Florida Institute of Technology in partial fulfillment of the requirements for the degree of

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Abstract

Title: The Future of Socialization.

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This study examines the relationship between socialization and engagement. In doing so this study investigates and measures the impact that social integration, task mastery, autonomy, role clarity, satisfaction with socialization, job embeddedness, network characteristics, network capital, and online socialization have in linking socialization to engagement. The sample for this study utilized data from Amazon Mechanical Turk. The results suggest that institutionalized socialization tactics relate to higher reported engagement. In addition, social integration, autonomy, job embeddedness, network strength, and network capital each play a significant role in the observed relationship.
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Dedication

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Chapter 1

Introduction

This study examines the relationship between organizational socialization and employee engagement, and other factors that help to explain their relationship. Although, effective socialization should result in greater employee engagement, this notion is more so speculated as being theoretically sound rather than empirically substantified (Allen & Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; Judge et al., 2012; Saks et al., 2010; VanMaanen & Schein, 1979). Theoretically speaking, socialization not only prepares employees for their job, but also acts as a catalyst in the formation of employees’ work-related attitudes (Allen & Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; Judge et al., 2012; Saks et al., 2010; VanMaanen & Schein, 1979). Empirically, in the case of Saks et al. (2010) for example, the relationship between socialization and engagement has been found to be insignificant, albeit positive. Overall, the relationship is understudied and unclear.

Two contributing factors related to the lack of empirical substantiation may be related to the outdatedness of the model in general and or the efficacy of the measurement models of socialization (Jones, 1986; Perrot et al., 2012; Van Maanen & Schein, 1979). Although seemingly comprehensive the model developed by Van Maanen and Schein (1979) and further developed by Jones (1986), may be somewhat outdated with the expeditious movement towards remote and or virtual workspaces. Advancements in technology within industrialized countries coupled with the impact that
the COVID-19 pandemic has had, the idea of a, “normal,” workday and work environment have changed. To this end, the difference between online socialization vs in-person socialization has been largely unexplored. For this, it is important to examine whether the theoretical model of socialization and its six continua maintain theoretical and empirical power. In addition, the measurement models of socialization need to be explored. From the origins of organizational research, the model developed by Van Maanen et al., (1979) supports a six-factor measurement model, whereas Jones (1986) examined the model through a global single-factor and has since then been examined as a three-factor model (Perrot et al., 2012). Furthermore, although each model has demonstrated support in relating to and predicting significant outcomes related to socialization, the research has largely failed to definitively identify the best model of measurement. As a research question of interest, this study discusses the support for each model and explores their individual and comparable fit.

Another possible factor impacting the scant empirical support for the relationship between socialization and employee engagement may be that engagement is more distally related to socialization (Saks et al., 2010). Although employee engagement can be measured, hypothetically speaking, at any given time, it may be that more accurate self-appraisals of engagement require a greater amount of time from the end of socialization as opposed to other more proximal outcomes of socialization. Temporally speaking, outcomes more proximally situated to the end of the socialization process, may account for or contribute to the relationship between socialization and engagement. This study conceives and examines social integration, task mastery, autonomy, role clarity, and satisfaction with the socialization process (referred to as STARS) as proximal
outcomes of socialization, as well as variables related to and predictive of engagement. Previous research in the domain of socialization establishes the significant and positive links between socialization and social integration, task mastery, autonomy, and role clarity (i.e. see Gruman et al., 2006; Morrison, 2002; Peltokorpi, 2022); however, previous empirical literature neglects to establish them as proximal outcomes of the socialization process, indicate their role(s) as linking variables between socialization and job attitudes (and specifically engagement), nor compares their collective/comparative impact in accounting for employee engagement. In addition, this study looks to establish the empirical relevance of examining employee satisfaction with the socialization process in the hopes of creating an additional opportunity to understand how socialization relates to employee engagement. By examining affective appraisals of the socialization process researchers and practitioners may better understand the effectiveness of the socialization process as well as consider other ways to improve their socialization processes.

Apart from individual appraisals that relate to how the socialization process develops employees functionally and affectively for their job, other job-related attitudes are important to consider to fully understand the relationship between socialization and engagement. Within this study, job embeddedness is examined and explored as an outcome of socialization, a predictor of engagement, and as a mediator of the relationship between socialization and engagement. Considering, the socialization process helps employees acclimate within their job and organization, this study argues that socialization therefore initiates the process of embedding employees within their job, which in turn directly influences their engagement. Furthermore, this study supports that the socialization process provides employees with an idea of how they fit within the
organization, the quality of the links and relationships they have with other organizational members, and results in them developing an understanding of the sacrifices they would have to make if they left. In turn, this embeddedness results in employees being either engaged or disengaged. In consideration of STARS, this study also examines how they account for variance in job embeddedness, whether they individually mediate the relationship between socialization and job embeddedness, as well as examines job embeddedness as a mediator of the relationship between the individual variables in STARS and engagement. In addition, because the move online is seemingly inevitable for organizations, this study also looks to preliminarily investigate how online socialization affects the relationships between socialization and the outcomes of interest (STARS, job embeddedness, engagement). Specifically, this study explores whether the percentage of onboarding experienced online by employees has a relationship with the measurement models of socialization, as well as whether online socialization moderates any of the relationships between socialization and the outcomes of interest (STARS, job embeddedness, engagement).

Finally, because socialization also initiates the development of one’s organizational network, it is important to consider the impact that network characteristics play in understanding the relationship among socialization outcomes. Conceptually and empirically, the socialization process initiates the development of employees interpersonal relationships and or networks (Allen et al., 2006; Ashforth et al., 1997; Ashforth et al., 1998; Fang et al, 2011; Hatmaker et al., 2014; Jones, 1986; Morrison et al., 2002; Perrot et al., 2012), and the greater value of these relationships to employees concerns certain raw characteristics of employees’ networks as well as the types of
capital or resources the members of said network provide employees (Allen & Shanock, 2013; Fang et al., 2011; Yoon & Lawler, 2006). To this end, this study further investigates the relationships network size, network strength, network status, and network capital have with the variables of interest. Specifically, this study aims to examine whether these network characteristics are positively and significantly related to STARS, job embeddedness and engagement.

In summation, this study first describes the process and theory of socialization, its components and subcomponents as well as the single, three, and six-factor measurement models. Second, this study examines proximal outcomes of socialization which include social integration, task mastery, autonomy, and role clarity, in addition to introducing satisfaction with socialization as an important attitudinal outcome of socialization (these five proximal outcomes are referred to as STARS). Third, the relationship between socialization and job attitudes are discussed. Specifically, the relationship between socialization and job embeddedness is defined and the roles of STARS linking socialization to job embeddedness is examined. Fourth, the relationship between socialization and engagement is discussed. Specifically, this relationship is studied by examining the direct relationship between socialization and engagement, as well as the indirect relationship through STARS and job embeddedness. Sixth, the impact virtual onboarding has regarding socialization is explored. Specifically, the association and influence percentage of onboarding done online has with socialization and its outcomes is explored. Seventh, the role employees’ networks play in predicting socialization outcomes is examined. The specific network characteristics examined include size, strength, status, and network capital (social, human, and cultural). Finally, a
comprehensive model, containing all variables of interest is included based off the significant relationships hypothesized and explored.
Chapter 2

Literature Review

Socialization

Definition

Socialization occurs everywhere. It occurs at every stage of an individual’s life, but the process and impact on individuals may differ depending on the context and purpose of socialization. At the most basic level and from an organizational perspective, the process of socialization (also referred commonly as onboarding) is used to attract and acclimate prospective employees (Allen et al., 2006; Ashforth et al., 1997; Ashforth et al., 1998; Boswell et al., 2005; Feldman, 1981; Jones, 1986; Perrot et al., 2012; Van Maanen et al., 1979). Within an organizational context, socialization is the process by which individuals are transitioned from outside of an organization into the organization (Boswell et al., 2005; Feldman, 1981; Jones, 1986; Van Maanen et al., 1979). Although this process allows employers to begin to understand new employees, it is also the first “look” new employees have of their organization(s) (Allen et al., 2006; Ashforth et al., 1997; Ashforth et al., 1998; Boswell et al., 2005; Feldman, 1981; Jones, 1986; Perrot et al., 2012; Van Maanen et al., 1979). As new employees integrate through the socialization process and become functional members of the organization they develop a perspective of what the organization “says” in comparison to what the organization “does” (Boswell et al., 2005; Feldman, 1981; Jones, 1986; Van Maanen et al., 1979).

The perspective employees have about their organization is shaped by many factors; however, much of the perspective forming is facilitated by the socialization process (Allen et al., 2006; Ashforth et al., 1997; Ashforth et al., 1998; Boswell et al., 2005; Feldman, 1981; Jones, 1986; Perrot et al., 2012; Van Maanen et al., 1979).
Because socialization facilitates a process wherein members of the organization guide, develop, and direct employees with regards to a wide array of processes, practices, and relationships, the socialization process may be one of the most important organizational influencers of employee success and adjustment. Although success and adjustment, can be broadly and specifically defined, for the purposes of this study success and adjustment can be thought of as employees becoming comfortable and familiar with their work (Bauer et al., 2007; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979). To this end, research in the domain of socialization indicates that effective socialization results in positive affective and performance-related outcomes, greater employee cognition, and overall adjustment (Allen & Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979). For socialization to positively impact employees, employers need to consider the approach they use, the content that makes up the socialization program, and the people who deliver the content (Allen & Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Fang et al., 2011; Feldman, 1981; Hatmaker et al., 2014; Jones, 1986; Morrison, 2002; VanMaanen & Schein, 1979). Organizations that care about how new employees feel about working at the organization should also care about how new employees are socialized.

Employees experience a great deal of stress acclimating into an organization, let alone any residual stress from the COVID-19 pandemic (Takeuchi et al., 2021). The process of onboarding and the program used should help facilitate the acclimation of organizational and role knowledge, help newcomers feel comfortable, as well as provide the opportunity for newcomers to ask questions to more tenured employees (Allen &
Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979). For this reason, it is imperative for organizational leaders to create an onboarding experience that is clear and directed (Allen & Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Fang et al., 2011; Feldman, 1981; Hatmaker et al., 2014; Jones, 1986; Morrison, 2002; Takeuchi et al., 2021; VanMaanen & Schein, 1979).

To this end, for employees to be successful in their role(s), employers need to equip and prepare their employees with the necessary information and resources pivotal to their jobs. The content presented should provide them with information that pertains to their work, the organization and its policies, the people in their network, job security, health and safety, and the environment in which they are doing their work (Allen, 2006; Boswell et al., 2005; Chao et al., 1994). Moreover, employers should pay close consideration to what information is given, how it is given, as well as how new employees feel about the process in which they are socialized (Allen & Shanock, 2013; Bauer et al., 2007; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979). Additionally, because socialization is an on-going and multi-stage process (Chao et al., 2014; Jones, 1986; VanMaanen & Schein, 1979), there are conceivably countless ways to improve its content and its delivery. With the interests of this paper focused on the impact that the initial socialization process has on newcomers’ experience, the net section examines the approaches/tactics used to facilitate the process.

**Socialization: Socialization Approaches**

Two major interests of this paper are to investigate the outdatedness of the theory supporting the measurement of the socialization, and to compare the efficacy of the three
measurement models of socialization approaches. Although, socialization is a very common concept across all work environments, there is a lack of empirical literature that scrutinizes the theory developed by Van Maanen and Schien (1979), nor compares the impact and differential contribution of each measurement model of socialization approaches; especially in predicting employee outcomes (Allen & Shanock 2013; Bauer et al., 2007; Pike, 2014; Saks, 2007; Perrot et al., 2012). To this end, an additional purpose of this study is to establish greater empirical support for the widely accepted Organizational Socialization Tactics scale developed by Jones (1986) from Van Maanen and Schein (1979) and examine them as antecedents to employee socialization and employee attitude-related outcomes.

Van Maanen et al. (1979), introduced six continua that pertain to the nature of the approaches taken during the development facilitation of onboarding. These six continua include: collective vs. individual, formal vs. informal, sequential vs. random, fixed vs. variable, serial vs. disjunctive, and investiture vs. divestiture (Van Maanen et al., 1979). These continua pertain to the way the onboarding is to be completed, how information is presented to newcomers, as well as the social layout of onboarding (Ashforth et al., 1997; Ashforth et al., 1998; Jones, 1986; Perrot et al., 2012). From the initial development of the model Jones (1986) further developed the model to reflect the side of the continuums that should be more effective in preparing and acclimating employees for their job. The subcomponents of this model make up what is referred to as institutionalized socialization, with the other subcomponents referred to as individualized socialization (Gruman et al., 2006; Jones, 1986; Perrot et al., 2012; VanMaanen & Schein, 1979). Institutionalized socialization consists of collective, formal, fixed, serial, sequential, and
investiture approaches/tactics, whereas individualized is made up of the other side of each continuum. More modernly, these continua have been further conceptualized and tested using a triadic model (Saks et al., 2007; Perrot et al., 2012). Utilizing the same subcomponents, the three-factor is separated into content (fixed and sequential vs. variable and random), context (collective and formal vs. individual and informal), and social (serial and investiture vs. disjunctive and divestiture) tactics (Ashforth et al., 1997; Saks et al., 2007; Perrot et al., 2012). Although the breakdown of subcomponents differs the same theory follows in that the approaches identified as institutionalized (over individualized) are more advantageous for employees. Overall, the research in the domain of socialization supports that each measurement model act as significant and positive predictors of important employee outcomes (Ashforth et al., 1997; Gruman et al., 2006; Jones, 1986; Perrot et al., 2012; VanMaanen & Schein, 1979).

The first of the continua, collective vs individual, refers to the extent to which the onboarding process is set up for prospective and new employees to go through a more personalized (individual) program by themselves or through a shared (collective) homogeneous program (Allen, 2006; Bauer et al., 2007; Jones, 1986; Pike, 2014; Perrot et al., 2012; VanMaanen & Schein, 1979). To this end, a collective approach is considered more effective because it fosters a sense of unity among newer employees and helps to bolster their connection with other organizational members. On the other side, an individual approach is thought to negatively influence employees because it may make them feel disparate from others, and possibly empowerment to ask questions (Ashforth et al., 1997; Gruman et al., 2006; Jones, 1986; Perrot et al., 2012; VanMaanen & Schein, 1979). However, as more work is virtualized, where will the distinction lie between an
individual vs collective approach, and what does a collective approach look like in an online platform?

The second continuum focuses on the extent to which an onboarding program is formal vs informal. Informal approaches resemble on-the-job training wherein new employees are essentially thrust into the role from the start (Bauer et al., 2007; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Formal approaches however entail an approach wherein each new employee goes through the same deliberate process. To this end, a formal approach is more effective because it initially separates the new employee from current employees to provide an environment that focuses on learning and development of job-related knowledge, skills, and abilities. In contrast, an informal approach puts a new employee in the middle of other current employees and potentially leads to a disparity between new employees in terms of knowledge and a comprehensive understanding of their role(s) (Bauer et al., 2007; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Still, there may be instances or specific types of work that are suited for each approach, and with a move towards a virtual environment it is important to consider how an informal vs formal approach looks and or feels for employees.

The next continuum, sequential vs random, refers to how newcomers must complete the onboarding process. A sequential approach provides newcomers with clarity on the set way of progressing through the onboarding process (Bauer et al., 2007; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Whereas a sequential approach is useful for maintaining clarity and providing employees with specific information about the socialization process, a random approach allows more control for the new employee
to complete the elements of training in no specific order (Allen, 2006; Jones, 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Overall, a sequential approach provides newcomers with a deliberate understanding of the knowledge, skills, and abilities they will acquire in order, which is intended to make clearer what their progression from a newcomer to a full employee. On the other hand, a random approach may be applicable if the job or role it prepares a newcomer for does not rely on a linear progression to develop and assess specific knowledge, skills, and abilities. Still, it may benefit organizations, and their new employees, to organize an online socialization program using a sequential approach to ensure greater clarity and structure.

Next, the fixed vs variable approach, provides newcomers with a sense of how quickly they will and must complete the process of onboarding and its steps. A fixed approach is thought to reduce newcomer stress and uncertainty because it provides newcomers with a specific and clearly defined timetable, whereas a variable approach opens that timetable without necessarily specifying when activities need to be completed (Bauer et al., 2007; Jones, 1986; Perrot et al., 2012; VanMaanen & Schein, 1979). Overall, providing newcomers with a clearly defined timetable should allow for organizations to better keep track of the progression of employees. For newcomers, a fixed approach should allow them to keep better track of their own progression and essentially make the end of the process a certainty. In the interest of the movement online, a fixed or variable approach may have an advantage depending on other aspects of the overall process. For example, if the approach is sequential and fixed vs sequential and variable, or random and fixed vs random and variable, the combinations of these subcomponents may make the process better or worse from the perspectives of the new
employees. Still, a fixed approach is supported as more advantageous because in many ways it benefits both the organization and new employees (Bauer et al., 2007; Jones, 1986; Perrot et al., 2012; VanMaanen & Schein, 1979).

The fifth continuum is that of the serial vs disjunctive approach. The serial approach is intended to provide newcomers with a role model or mentor that will help guide the newcomers through the socialization process, whereas the disjunctive approach leaves new hires to navigate their way without the help of an experienced peer (Allen, 2006; Bauer et al., 2007; Jones; 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Overall, a serial approach is more advantageous because it incorporates an element of direct relationship and network building for new employees, while also providing new employees with a sense of investment from the organization (Allen, 2006; Bauer et al., 2007; Jones; 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). In terms of moving socialization online, this may be particularly hard to facilitate unless significant effort has been put into the development of the program.

Finally, the sixth continuum concerns an investiture vs divestiture approach. This continuum relates to how new employees are treated as they learn their role and specifically how information is communicated to them regarding performance (Jones, 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). The investiture approach entails more seasoned, experienced, and or tenured members of the organization to guide and provide newcomers with positive feedback as they navigate the organization's socialization and onboarding processes. In contrast, a divestiture approach entails those members functioning as a negative feedback loop (Bauer et al., 2007; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). The main issue with a divestiture
approach is that it may be received negatively by new employees because it focuses more on their inadequacies in relation to some specific socialization criteria. Furthermore, an investiture approach is thought to incentivize employees to reach socialization outcomes by using positively focused feedback to ensure greater employee self-confidence and empowerment (Bauer et al., 2007; Jones, 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Although the benefits of an investiture approach are conceptually and empirically supported, how this approach is facilitated online or through a virtual workspace is largely uninvestigated.

Taken together, the conceptual model developed by Van Maanen and Schien (1979) specifies that collective, formal, sequential, fixed, serial, and investiture approaches/tactics are more beneficial to organizations and new employees over the respective opposing sides of the continuums (Allen, 2006; Bauer et al., 2007; Jones; 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Collectively, the aforementioned approaches make up the subcomponents of the institutionalized measurement model of socialization (Bauer et al., 2007; Jones; 1986; Perrot et al., 2012; Pike, 2014). In addition, the institutionalized model of socialization has been further conceptualized and tested using a triadic model, which consists of social, context, and content related approaches (Bauer et al., 2007; Jones; 1986; Perrot et al., 2012; Pike, 2014).

Although the single, three, and six factor measurement models of socialization have been empirically supported in examining employee and organizational outcomes, no study to date has examined their comparative fit. Furthermore, studies that have examined the single and three factor measurement models of socialization (i.e. Perrot et
al., 2012) have not indicated whether the items used to assess the prevalence of each approach translate into a virtual format of socialization. The following section briefly reintroduces the three measurement models of socialization and defines the first research question of interest.

**Socialization: Models**

From the work of Van Maanen and Schein (1979), Jones (1986) developed a measurement model that consolidates the ends of the continuums into a single factor. This model distinguishes between institutionalized tactics (collective, formal, sequential, fixed, serial, and investiture) and individualized tactics (individual, informal, random, variable, disjunctive, and divestiture). Furthermore, Jones (1986) proposed that the separate subcomponents encompass three larger components that represent approaches related to socially related (serial and investiture), content-related (fixed and sequential), and contextually related (collective and formal) aspects of the socialization process.

All model variations (six, three, and one; see figure 1 below) and conceptualizations (institutionalized vs individual) have indicated acceptable reliability (Ashforth et al., 1997; Jones, 1986; Perrot et al., 2012), however, limitations in terms of the total body of work examining these relationships are also acknowledged as somewhat lacking both in total article amount and the proximal and distal outcomes of socialization tactics studied (Allen et al., 2013; Ashforth et al., 1997; Boswell et al., 2005; Grumman et al., Jones, 1986; Morrison et al., 2002; Perrot et al., 2012). Additionally, researchers contend (e.g., Perrot et al., 2012) that other factors related to the conditions of the job and the organization play a part in understanding which tactics are best.

The support for approaches comprised in the institutionalized socialization model conceptually follows that institutionalized tactics reduce stress and uncertainty for
newcomers because they provide clear, direct, and thoughtful support for newcomer socialization process. In contrast, individualized tactics entail less definitive direction for new employees and ultimately do little to mitigate stress for newcomers (Jones, 1986; Saks et al., 2007; Perrot et al., 2012; VanMaanen & Schein, 1979). Moreover, individualized approaches may cause more stress for newcomers attempting to learn and complete onboarding due to the lack of specific direction characterized by its subcomponents (Allen, 2006; Bauer et al., 2007; Jones; 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). Overall, these measurement models have not been tested in the context of virtual and or online onboarding, nor have they been thoroughly examined comparatively. To this end, it is important to establish the utility and validity of utilizing the socialization metric, in tandem with identifying the model with the best fit. For this the first research point of interest follows:

**Research Question 1: Which Socialization tactics model has the greatest fit?**

Figure 1.

*Three Models of Socialization Tactics*

<table>
<thead>
<tr>
<th>Six Factor</th>
<th>Three Factor</th>
<th>Single Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Collective vs Individual</td>
<td>- Social (serial and investiture vs. disjunctive and divestiture)</td>
<td>- Collective</td>
</tr>
<tr>
<td>- Formal vs Informal</td>
<td>- Content (fixed and sequential vs. variable and random)</td>
<td>- Formal</td>
</tr>
<tr>
<td>- Sequential vs Random</td>
<td>- Context (collective and formal vs. individual and informal)</td>
<td>- Sequential</td>
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<tr>
<td>- Serial vs Disjunctive</td>
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<td>- Serial</td>
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<td>- Fixed vs Variable</td>
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<tr>
<td>- Investiture vs Divestiture</td>
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<td>- Investiture</td>
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Beyond the lack of empirical evidence comparing the models, until more recently
little research has considered as well as examined the range of proximal vs distal outcomes associated with socialization. In a similar way as Perrot et al., 2012) this study aims to provide greater clarity of the proximal and distal outcomes of socialization, in order to demonstrate the link between socialization and engagement. To this end, the following section identifies the proximal socialization outcomes of interest (social integration, task mastery, autonomy, role clarity), provides support for their distinction as proximal outcomes of socialization, introduces an additional proximal socialization outcome unexamined in socialization literature (satisfaction with socialization), and states the hypotheses regarding the proximal socialization outcomes of interest.

**Socialization: Proximal Outcomes (STARS)**

The socialization approaches or program used by an organization can greatly impact newcomers on a variety of employee roles and identity-related outcomes (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Perrot et al., 2012). As mentioned above, certain socialization tactics and approaches are not only conceptually more salient with and empirically related to certain socialization outcomes; they are also interrelated with other socialization tactics. That is, depending on the model used (1-factor, 3-factor, 6-factor) the quantitatively measured relationships between approaches and outcomes will vary (Perrot et al., 2012). This article directly addresses the most appropriate factor model of socialization tactics to use when examining the approach-outcome relationships, as well as which approaches and or tactics have the strongest associations with socialization outcomes (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Morrison, 2002; Saks et al., 2007). The socialization outcomes of particular interest in this study include
social integration, task mastery, autonomy, role clarity, as well as satisfaction with the socialization process. In the interests of this study these outcomes are referred to as STARS.

Comprehensively, the socialization process should result in new employees becoming more self-sufficient. From an individual subcomponent socialization standpoint, each approach should contribute to the acquisition of necessary knowledge and skills related to employees’ jobs. Conceptually, the information transmitted and the experiences that occur during socialization results in the development of perspectives of the socialization process, the development of a network or social identity, the ability to understand and perform the tasks of the job, as well as knowledge of the degree of power employees have to make decisions related to their role (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Perrot et al., 2012). Although, it is difficult to identify specifically when certain proximal outcomes of socialization occur, based on what each advantageous approach facilitates the relationships among the proximal outcomes of interest.

The first of these outcomes is social integration. Social integration refers to employees’ perceived level of interpersonal integration within their organization and among their coworkers (Fang et al., 2011; Gruman et al., 2006; Morrison, 2002; Peltokorpi, 2022). Based on the literature and findings in the domain of socialization and social integration, institutionalized socialization helps to facilitate greater social integration for new employees (Fang et al., 2011; Gruman et al., 2006; Morrison, 2002; Peltokorpi, 2022). Taken as subcomponents, collective socialization formats aid in the development of newcomer comradery, formal approaches reinforce the similarity of
experiences among all employees, serial approaches help to initiate the development of relationships among new employees with current employees, and investiture approaches reinforce a positive relationship among new employees with current employees (Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Peltokorpi, 2022). From an ancillary perspective sequential and fixed approaches provide clear and direct timeframes for the progression of the process, which may also reinforce employee perceptions of the vested interest that the organization has in their development (Allen, 2006; Ashforth et al., 1997; Fang et al., 2011; Gruman et al., 2006; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979). New employees may find that these approaches make it easier for them to integrate socially in that these approaches reduce the stress of understanding the job, which may could allow for an easier network development experience.

Task mastery refers to employees’ perceived level of mastery over the tasks of their job (Fang et al., 2011; Morrison, 2002; Peltokorpi, 2022). Based on the literature and findings in the domain of socialization and task mastery, institutionalized socialization helps to facilitate greater task mastery for new employees (Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979). Because institutionalized socialization clearly defines the process and plan of onboarding for new employees, new employees have a greater understanding of how the skills associated with the tasks of their job. At the subcomponent level, a collective approach brings new employees together which increases the likelihood of other new employees asking questions and developing skills alongside each other, and a sequential approach clarifies the order to which skills will be learned and hopefully demonstrates how tasks build upon one another. In addition, fixed approaches give new employees a direct, and hopefully
realistic, timeframe of how long each skill will take to develop (Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979). Serial and investiture approaches should aid in the development of new employees’ perceptions of task mastery because they provide newcomers with employees who know and understand the tasks of new employees’ jobs well and provides new employees an environment that allows them to feel empowered to master the tasks of their job (Fang et al., 2011; Morrison, 2002; Peltokorpi, 2022). From an ancillary perspective, formal approaches separate new employees from current employees which may aid in the development of task mastery because it allows new employees to learn in an environment without the potential pressure or awkwardness learning the tasks of the job (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979).

Autonomy refers to employees’ perceived level of control over work and work-related decision making (Breaugh, 1985; Ng et al., 2008). Aside from the proximal socialization outcome of satisfaction with socialization, the literature examining autonomy as an outcome of institutionalized socialization is understudied (Ng et al., 2008). That being said, the findings from Ng et al., (2008) indicate that institutionalized socialization is significantly related to higher reported autonomy. Conceptually, institutionalized socialization should increase new employees’ feelings of autonomy because it directly clarifies the range of employees roles, tasks, as well as other job functions (Breaugh, 1985; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Van Maanen & Schien, 1979). Taken at the subcomponent level, sequential and fixed approaches clarify the process and timeframe
for employees to complete onboarding and engage in their role, and serial and investiture approaches provide new employees with opportunities to develop insights from current employees who help them to become experts in their role (Allen, 2006; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Van Maanen & Schien, 1979). When new employees are provided clear guidelines on the intricacies of their role and are able to gain insights and wisdom from employees who understand their role, they should be more empowered in understanding what is and what is not within their power to make job related decisions. From an ancillary perspective, collective and formal approaches may help in reducing performance anxiety in learning for new employees, and may reduce the confusion associated with informal approaches, insofar that an informal approach may overwhelm a new employee by putting them in the middle of the work without having time to become slowly integrated into the role. By expediting this process and immersing new employees with current employees, new employees may be overwhelmed by the process and less able to focus specifically in learning their role.

Role clarity refers to an employee’s perceived level of job role knowledge (Fang et al., 2011; Morrison, 2002; Peltokorpi, 2022). Based on the literature and findings in the domain of socialization and role clarity, institutionalized socialization helps to facilitate greater role clarity for new employees. In a similar way as the influence institutionalized socialization has on task mastery, institutionalized socialization provides newcomers with clarity, structure, and support (Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979). At the subcomponent level, sequential and fixed approaches provide new employees with a clear process and
timeframe in which they will acquire the necessary knowledge to understand each aspect of their role as well as how each component of their role is situated among the other components and how the fit comprehensively into their specific role(s) (Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979). In a similar way as task mastery, serial and investiture approaches aid in the development of new employees’ perceptions of role clarity because they provide newcomers with employees who know and understand their role and how their role fits among others’ roles within an environment that allows them to ask questions and get advice on how to excel in their role(s) (Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979). From an ancillary perspective, collective and formal approaches allow for new employees to learn and be onboarded amongst other new employees and without the potential stressors or insecurities new employees may have learning their role among current employees (Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schien, 1979).

Empirically, these outcomes are important to examine because they are significant indicators for organizational leaders of newcomer readiness and adjustment (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Gruman et al., 2006; Morrison, 2002; Peltokorpi, 2022). A newcomer who feels confident in their mastery over their work and job tasks (Morrison, 2002; Peltokorpi, 2022), is clear on the expectations of their role (Morrison, 2002; Peltokorpi, 2022), and who is well integrated into the existing social structure (Gruman et al., 2006; Morrison, 2002; Peltokorpi, 2022), is likely to feel better about their experiences (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Morrison, 2002; Peltokorpi, 2022; Saks et al., 2007). In addition, individuals who are
well socialized are likely to feel a greater sense of autonomy or control over their work (Allen et al., 2013; Boswell et al., 2005).

As previously supported the relationships between socialization approaches and socialization outcomes (social integration, task mastery, autonomy, and role clarity) are examined in this study. However, in order to understand the link between socialization and employee engagement, it is important to also consider an employee’s satisfaction with the socialization process. Once the socialization process concludes, the new employee should have a stronger understanding of their work, the work environment, and should have developed a strong basis for understanding the organization more completely (Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; VanMaanen & Schein, 1979).

At this point, organizations have an opportunity to examine affective outcomes, which should represent a comprehensive appraisal of the socialization experience. The results of a good socialization process should leave newcomers with a greater understanding of the standards and expectations of performance, an awareness of the people within their network, knowledge of the critical members within their network, the culture and bureaucracy of the organization, as well as their feelings and attitudes about the organization and their new job (Chao et al., 1994; Jones, 1986; VanMaanen & Schein, 1979). The literature demonstrates that effective organizational practices lead to higher newcomer proactive social behaviors (Gruman et al., 2006), lower attrition and turnover (Allen & Shanock, 2013; Boswell et al., 2005), and overall greater communication and interaction with other organizational members (Gruman et al., 2006).

For these reasons, a simple but interesting outcome to examine is reactions to the onboarding process. Considering the impact that socialization approaches have on
employees’ positive emotions at work, it is likely that these same positive relationships between socialization approaches and the other variables included in STARS will operate similarly. To this end, the better the program and or job preview, the better employees should feel about the process, as well as how equipped they feel for their role in the organization (Earnest et al., 2011). Looking at the subcomponent level of institutionalized socialization, serial and investiture approaches should promote positive feelings about the socialization process because it provides them with current employees who are able to give them thoughtful direction and considerate feedback on their progression into the organization. In addition, sequential and fixed approaches should help simplify and clarify the process of socialization as well as how the onboarding process relates their position (Chao et al., 1994; Earnest et al., 2011; Jones, 1986; VanMaanen & Schein, 1979). From an ancillary perspective formal and collective approaches help to create an environment that promotes new employee focused development and standardizes the experience for all new employees, which may reduce feelings of ambiguity in new employees. More specifically, by having a formal approach to onboarding new employees should be less concerned with whether they are receiving different information on the process and their role compared to other new employees (Chao et al., 1994; Gruman et al., 2006; Jones, 1986; Perrot et al., 2012; VanMaanen & Schein, 1979).

Still, due to the “newness” of this outcome this study establishes its significant and positive relationship with institutionalized socialization as well as its significant and positive relationship with the other proximal outcomes included in STARS.

As mentioned above an interest of this study is to examine a few variations of the relationships between socialization approaches and socialization outcomes. As also
indicated previously, the literature in the socialization domain demonstrates support for the various models as well as significant associations between certain socialization approaches and outcomes (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Morrison, 2002; Saks et al., 2007). Overall, the literature emphasizes the importance of social and content tactics because they speak to the importance of clarifying the process and timeframe of socialization (content) as well as to the positive influence that current employees can have on new employees by providing thoughtful guidance throughout the process (Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Perrot et al., 2012; Van Maanen & Schien, 1979). Based on the previous support from the previous literature (e.g., Allen et al., 2013; Boswell et al., 2005; Gruman et al., 2006; Peltokorpi, 2022; Perrot et al., 2012; Saks et al., 2007), the studies utilizing Jones (1986) institutionalized vs individualized approach framework, as well as the impact that social tactics and content tactics (over context tactics) on important employee outcomes (Saks et al. 2007; Perrot et al., 2012) the following hypotheses are proposed:

_Hypothesis 1 - Institutionalized socialization will be positively related to and significantly predictive of social integration, task mastery autonomy, and role clarity._

_Hypothesis 2 - Social Tactics (serial and investiture) will be positively related to and significantly predictive of social integration, task mastery autonomy, and role clarity._

_Hypothesis 3 - Content Tactics (fixed and sequential) will be positively related to and significantly predictive of social integration, task mastery, role clarity, and autonomy._
Hypothesis 4 - Institutionalized socialization tactics will be positively and significantly predictive of newcomer satisfaction with the socialization process.

Hypothesis 5 - Newcomer satisfaction with the socialization process will be positively associated with social integration, task mastery autonomy, and role clarity.

Figure 2.
The impact of Institutionalized Socialization Tactics on Social Integration, Task Mastery, Autonomy, and Role Clarity.

Figure 3.
The positive impact of Social Socialization Tactics on Social Integration, Task Mastery, Autonomy, and Role Clarity.

Figure 4.
Positive impact of Content Socialization Tactics on Social Integration, Task Mastery, Autonomy, and Role Clarity.
In order to provide greater clarity on the variables that link socialization to engagement the following section introduces and overviews the concept of job attitudes, provides theoretical support to explain the linkage between socialization and job attitudes, explains the link between socialization and job embeddedness directly and indirectly through STARS, and identifies job embeddedness mediator between socialization and engagement.

**Socialization: Job Attitudes**
The socialization process should prepare new employees to be effective in their role and within the organization at large. The success of a new employee depends on the members of their network (Fang et al., 2011; Hatmaker, 2015; Morrison, 2011; Yoon & Lawler), their ability to understand and fulfill their work requirements (Campbell, 1990), and their attitudes toward their job including perceptions of fit within the organization (Fang et al., 2011; Kristof-Brown et al., 2005). As the employee progresses through the organization, they form an attitude towards their job, a *job attitude*.

Operationally speaking, job attitudes refer to a range of feelings employees have in reference to their work and towards their organization(s) (Albarracin et al., 2005; Bohner et al., 2011; Eagly et al., 1999; Fishbein, 1967; Judge et al., 2012). Drawing from Affective Events Theory, an employee’s attitude towards their organization is impacted and shaped by their work environment, from which characteristics relating to the job and the role in turn impact the nature of work interactions (Weiss et al., 1996). The positive and negative experiences affect the employee’s affective state, which in turn affects their job satisfaction and performance (Weiss et al., 1996). Moreover, once these feelings form it is unlikely they will change.

Because employees’ job attitudes begin to form early on and are less likely to change once formed (Judge et al., 2012), socialization has a large impact on how new employees perceive the organization and their role (Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Judge et al., 2012; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Perrot et al., 2012; Van Maanen & Schien, 1979). These feelings may range from a highly favorable to a highly unfavorable evaluation and may pertain to how they feel about the relationships they have with other employees, the organization and its parts, the
collective work environment, as well as job and other factors (Albarracin et al., 2005; Bohner et al., 2011; Eagly et al., 1999; Fishbein, 1967; Judge et al., 2012; Schleicher et al., 2015).

A major piece of understanding employee job attitudes relies on whether newcomers understand their roles and know how to get the important job-related resources (Fang et al., 2011; Kristof-Brown et al., 2005). In this way, socialization is conceptually linked to employee job attitudes because it facilitates the process during which employees learn their role(s) and the resources associated with their role(s). Preparing employees to be successful in their role and at obtaining resources reduces the anxiety of onboarding and positively shapes newcomers’ perceptions and attitudes toward their job and organization (Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Perrot et al., 2012; Van Maanen & Schien, 1979).

From the literature, past research indicates that institutionalized socialization tactics negatively relate to new employees’ turnover intentions (Allen & Shanock, 2013). Essentially, when newcomers feel that their organization and its members take a special interest in their success, and they feel adequately equipped to do the work they were selected and trained for, they feel less inclined to leave (Allen & Shanock, 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Saks et al., 2007; Perrot et al., 2012; VanMaanen & Schein, 1979). Researchers have also found that institutionalized tactics are positively associated with job satisfaction and organizational commitment (Ashforth et al., 2007; Saks et al., 2007; Takeuchi & Takeuchi, 2009), as well as important learning and role-related outcomes (Perrot et al., 2012). In addition, past research in this domain
has demonstrated that an employee's affective state can be a strong motivational factor that impacts their intentions to engage and stay (Judge et al., 2012; Schleicher et al., 2015; Thoreson et al., 2003). For example, job attitudes impact employee motivation, job performance, organizational citizenship behaviors, employee physical and psychological health, withdrawal cognitions and behaviors, and turnover intentions (Schleicher et al., 2011). Socialization tactics and job attitudes both impact employee outcomes; however, whereas socialization begins at the start of a newcomer’s journey, job attitudes develop form overtime through socialization and other experiences.

For this, the present study supports that although job attitudes begin to form early on it also takes time for them to solidify. The examination of employee job attitudes is potentially more accurately measured once employees perform their role, rather than when they are done with the onboarding process or shortly after. To this end, job attitudes are more distally related to socialization as opposed to such outcomes as STARS. The following section focuses on providing specific support for the relationship between socialization and job embeddedness, as well as the role that STARS has in linking them.

**Job Embeddedness**

Overall, this study argues that institutionalized socialization tactics lead to more positive appraisals of STARS, and that STARS influences job embeddedness directly and or mediates the relationship between socialization and job embeddedness. First, it is important to consider the direct vs indirect relationship institutionalized socialization has on job embeddedness. From a direct standpoint the operation of socialization facilitates the development of employees knowledge and comprehension of their role and the organization (Allen & Shanock, 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; Perrot et al., 2012; Saks et al., 2007; VanMaanen & Schein, 1979). In
doing so employees become more embedded into their organization. As this relates specifically to job embeddedness, once employees finish the formal socialization process they form an understanding of well they fit within the organization, the types and quality of the links they have with the members of their organization, as well as an understanding of the advantages and disadvantages of their job and organization (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). Employees begin to form an understanding on the factors that embed them within the organization, or in essence their level of job embeddedness.

Job embeddedness is interesting because its addresses work and life factors affecting employees’ decisions to stay (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). Conceptually and functionally, job embeddedness, resembles an anti-turnover and or personal-resource utility model, in that an employee’s decision to stay or leave their job is impacted by the resources and other forces that compel them to stay (Allen et al., 2013; Crossley et al., 2007; Jiang, 2012). Of particular interest is the part that job embeddedness plays in linking socialization tactics to positive individual and organizational outcomes (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Peltokorpi, 2022). Research examining the relationship has indicated support for job embeddedness as an outcome of socialization, as well as that it takes on a mediating role in connecting organizational socialization tactics to employee affective commitment (Allen et al., 2013; Peltokorpi, 2022) as well as turnover intentions (Ahmad et al., 2019).

As mentioned, the operation of socialization facilitates the development because it attends to the subcomponents that make up job embeddedness. Specifically, socialization
attends to the three facets that make up the concept of job embeddedness which include 

*links, fit, and sacrifices* (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; 
Crossley et al., 2007; Mitchell et al., 2011). Links refer to the formal and informal 
connections an employee forms with their institution, their environment and the people 
inside and outside of their organization. Links begin to form and develop early on and 
through the socialization process (Ahmad et al., 2019; Allen, 2013; Crossley et al., 2007; 
Jiang, 2012; Mitchell et al., 2001). Socialization efforts facilitated by experienced 
organizational members, who provide positive social support and deliver important 
organizational information in a group or cohort, allow new employees to develop 
meaningful and important links (Allen et al., 2013). These initiatives increase the 
attachment or embeddedness employees have with the organization (Ahmad et al., 2019; 
Allen, 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). Considering the 
impact that socialization has on the development of interpersonal relationships and the 
influence socialization has on outcomes, such as social integration; it is likely that the 
relationships fostered by socialization impact an employee’s ability to form and maintain 
meaningful links.

Fit refers to the feel or sense of compatibility employees have with their work and 
nonwork environments (Ahmad et al., 2019; Allen, 2013; Crossley et al., 2007; Jiang, 
2012; Mitchell et al., 2001). Perceptions of fit begin to form as the employee navigates 
onboarding while learning about how the values and interests of the organization and its 
members, as well as discovering the community in which they live (Ahmad et al., 2019; 
Allen, 2013; Crossley et al., 2007; Mitchell et al., 2001; Schleicher et al., 2011). 
Socialization efforts that allow employees to develop a full understanding of the work
and the work environment, through the delivery of specific information about the sequence of learning activities and about the timing associated with completing onboarding, strengthen new employees’ perceptions of fit (Ahmad et al., 2019; Allen, 2013; Crossley et al., 2007; Mitchell et al., 2001; Schleicher et al., 2011). Taken with the previous assertions concerning the socially facilitative process of socialization and the outcomes including perceptions of social integration, autonomy, role clarity, and task mastery; it is likely that the socialization process and its more proximal outcomes influence perceptions of fit directly.

Sacrifice refers to an appraisal of what an employee would be giving up (materially or psychologically) if they decide to leave their job and community (Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). Perceptions of sacrifice begin to form as the employee considers the financial, personal, and environmental boons they have within their current role; these perceptions become firmer as they consider the opportunities for betterment in these same areas (Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). As with the perceptions of link/connections and fit, perceptions of employee sacrifice will increase in strength if the socialization tactics resemble the actual work environment, reflects the work required for the role, and are facilitated by competent and role-model type employees (Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). Taken with the previous assertions concerning the part socialization has in making employees aware of the resources and environment pertinent to work, as well as the positive impact high levels of perceived social integration, autonomy and task mastery can have in making an employee feel tied to their work; it is
likely that the process of socialization, which leads to important job-related socialization outcomes, impacts employee evaluations of sacrifice positively.

Taken together, when employees are socialized, they become more aware of their fit within the organization as well as the sacrifices they would have to make if they decided to leave. In addition, through the process of socialization and onboarding employees form an understanding of their network and or the links they have with the organization. To this end the following hypothesis is proposed:

**Hypothesis 6:** Institutionalized socialization tactics will be positively related to and significantly predictive of job embeddedness scores.

Figure 7.

*The Association Between Institutionalized Socialization Tactics and Job Embeddedness.*

Next, although the direct relationship between socialization and job embeddedness is conceptually and empirically supported, their link is possibly mediated by other more proximal variables related to socialization such as STARS. In order to examine this relationship, it is important to also consider the conceptual link between STARS and job embeddedness. First, social integration relates to job embeddedness in that it conceivably relates to each individual facet of job embeddedness. Interpersonal relationships formed among coworkers and other organizational members impact the experience of all employees (Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007;
Jiang, 2012; Mitchell et al., 2001. More specifically, the degree to which an employee feels socially integrated will impact their perceptions of how well they fit within their job and organization, directly impact their appraisals of the quality of the links they form, as well as weigh as a positive or negative factor regarding them staying (Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002).

Second, task mastery relates to job embeddedness in that it conceivably accounts for variance in perceptions of fit and sacrifice. Specifically, because task mastery relates to the extent to which employees believe they have mastered the tasks of their job and or role, employees with greater task mastery may feel greater fit due to their deeper understanding of their job tasks (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002). Similarly, because they feel mastery over their tasks new employees may consider their mastery as a component of their job that compels them to stay (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022).

Third, although autonomy may also relate directly to employees perceptions of job embeddedness, the link has failed to be established (Ghosh et al., 2015). To this end, this study highlights the conceptual relationship between autonomy and job embeddedness, and largely ties autonomy to the facets of fit and sacrifice. From this perspective autonomy relates to employee job embeddedness in that it may be perceived as a luxury or valuable sacrifice to be given up, conversely, if employees jobs are lacking in autonomy they may view their lack of control over their position as a reason to leave (Breaugh, 1985; Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al.,
From a fit standpoint, greater autonomy relates to perceptions of fit because employees with greater autonomy are more likely to understand the control they have over their work, and perceptions of fit are influenced by the understanding employees develop as they deepen their knowledge of their job and their work environment (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Ng et al., 2008).

Fourth, role clarity relates to job embeddedness in that the clearer employees are of their roles potentially the greater fit they feel within the organization (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022). Similarly, employees understanding of their role directly influences whether they view their job as a reason to stay or a reason to leave their organizations (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022). In addition, employees understanding of their role will also relate to their appraisal of the links they have within and to their organization (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022). To this end, employees with greater role clarity have a clearer understanding of their links within the organization.

Finally, although satisfaction with socialization is a relatively novel concept it is also hypothesized as playing a pivotal role in understanding the link between socialization and the job attitudes of interest in this study. Because employees attitudes are affected by the socialization process they have, act as the basis for employees’ mindsets, and influence how employees’ appraise their job (Weiss et al., 1996), the satisfaction with socialization that newcomers have relates to their perceptions of job
embeddedness. More to this point, the degree to which employees are satisfied with the socialization process will directly relate to their appraisals of fit, whether they initially view their job as a sacrifice, as well as directly relate to the appraisal of the links they have with their organization. Employees with greater appraisals of satisfaction will likely perceive themselves as fitting in well because of their positive socialization experience (Crossley et al., 2007; Fang et al., 2011; Jones, 1986; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022; Van Maanen & Schein, 1979). Similarly, employees will be more likely to perceive the links they form as more positive because of their positive socialization experiences. Finally, when employees are more satisfied with the experiences they have with their organization, they are more likely to view their job more favorably, and therefore as a sacrifice they would not like to give up (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022).

Collectively and individually the relationships STARS have with job embeddedness need to be explored further. Moreover, because this study posits that STARS are proximal outcomes of socialization, with job embeddedness and engagement as more distally related to socialization, it is also important to consider how STARS mediates the relationships between socialization and job attitudes. Comprehensively speaking, STARS operate as outcomes of the socialization process because they directly relate to the purposes of institutionalized socialization (i.e. facilitate the development of new employees knowledge, skills, and abilities), as well as the are affected by the environment in which socialization occurs both in terms of how employees learn and receive feedback (Chao et al., 1994; Fang et al., 2011; Gruman et al., 2006; Jones, 1986;
Morrison, 2002; Perrot et al., 2012; VanMaanen & Schein, 1979). As theorized previously, STARS directly relate to job embeddedness because they attend to the facets of job embeddedness, in terms of affecting employees perceptions of their fit, the links with their organization, and whether they view job as a positive or negative sacrifice (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022). Moreover, because the variables of STARS ostensibly provide a picture of employees perceptions of the effectiveness of their socialization experience, it is possible that STARS account for the variance explained in job embeddedness by the socialization process (Chao et al., 1994; Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022; Perrot et al., 2012; VanMaanen & Schein, 1979). In order to provide greater support for the direct and indirect relationship STARS play in linking socialization to job embeddedness the following hypotheses are proposed:

_Hypothesis 7: STARS (social integration, autonomy, task mastery, role clarity, and satisfaction with socialization) will be positively related to and significantly predictive of job embeddedness scores._

_Hypothesis 8: STARS (social integration, autonomy, task mastery, role clarity, and satisfaction with socialization) will mediate the relationship between socialization tactics and job embeddedness._

Figure 8.

_The Association Between STARS and Job Embeddedness._
Figure 9.

*STARS mediating the relationship between Institutionalized Socialization Tactics and Job Embeddedness.*

Job embeddedness is a relatively new but empirically sound concept that has clear conceptual alignment with socialization (Chao et al., 1994; Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022; Perrot et al., 2012; VanMaanen & Schein, 1979). As outlined previously socialization helps to empower employees with the knowledge to increase their interest in staying with the organization and investment in their work and the organization’s goals (Jones, 1986, Perrot et al., 2012; Van Maanen & Schein, 1979). Effective socialization should lead to higher feelings of embeddedness. By becoming more embedded it’s likely new employees will remain a part of the organization (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001). In a similar sense, the more embedded an employee is within their organization, conceivably they should also be more engaged. However, the relationship between job embeddedness and engagement is unclear. The next section
directly addresses the link between socialization and engagement, as well as identifies the roles that STARS and job embeddedness play.

**Engagement**

In order to properly examine the relationship between socialization and engagement, it is necessary to consider why measuring engagement is so important. Overall, the interest in examining engagement relies on its incremental predictive power in understanding employee performance and turnover beyond other job attitudes (Mackay et al., 2017). When examined with and in comparison, to other job attitudes (i.e., job satisfaction, affective organizational commitment, and job involvement), engagement has been shown to be a possible higher-order construct predicting employee effectiveness (such as contextual job performance) (Mackay, 2017). In addition to the research frequency and breadth of interest surrounding the subject, examining employee engagement to assess employees’ attitudes towards work, provides valuable insights to employers about the camaraderie and or dissolution present in their workforce (Bledow et al., 2011; Boulianne et al., 2020; Knight et al., 2017; Mackay et al., 2017; Mazzetti et al., 2021; Rattrie et al., 2020).

Much like socialization, the concept of engagement is also easily digestible. Engagement often refers to the employee’s state of mind when they are at work (Bledow et al., 2011; Halbesleben et al., 2009; Mackay, 2017). Moreover, a highly engaged employee would demonstrate vigor (work strength and energy), dedication (work enthusiasm and inspiration), and absorption (workflow and focus) to and with their work, as well as feel positive about and fulfilled in their work (Bledow et al., 2011; Halbesleben et al., 2009; Mackay, 2017). There are also a variety of reasons why employees feel engaged such as the work speaks to an employees’ dispositions (they like the work), the
nature of the work is interesting, and or they are inspired by their leader (Halbesleben et al., 2009). One area that has been understudied and is unclear, is how socialization relates to engagement.

First, it is important to consider their relationship at face value. If employees have a successful onboarding experience wherein they feel they have learned their job well, they understand the social layout of the organization and their role, and they enjoy the process, they are likely to feel more engaged in their work. Conversely, if employees are unequipped to handle their job and did not enjoy the socialization process they are likely to feel less engaged. Second, it is important to consider the conceptual alignment between theories of socialization and engagement. Essentially, when examining the theory that explains them as concepts, “Is there conceptual alignment and or overlap?” To this end the tenets of socialization theory suggest that institutionalized socialization provides a clear, structured, and nurturing environment that facilitates new employee adjustment, prepares them for their role, and allows them to integrate into the organization with greater ease and a sense of empowerment (Allen, 2006; Boswell et al., 2006; Chao et al., 2014; Jones, 1986; Perrot et al., 2012; Saks et al., 2010; Van Maanen & Schein, 1979).

Unlike socialization, which has been largely dominated by the theory put forth by Van Maanen and Schein (1979) and adapted by Jones (1986), employee engagement has been examined through three different theories (Bakker et al., 2003; Khan, 1990; Levinson, 1965; Masterson et al., 2000; Sunset la., 2019). Specifically, the three theories of employee engagement are the Needs-Satisfaction Framework (Khan, 1990), the Job-Demands Resource Model (Bakker et al., 2003), and Social Exchange Theory (Levinson, 1965; Masterson et al., 2000). Examining these theories from a broad perspective,
appraisals of engagement are thought to be affected by the exchanges the employee has with the organization’s members (Levinson, 1965; Masterson et al., 2000; Sun et al., 2019), the resources provided in relation to the demands of the job (Bakker et al., 2003; Sun et al., 2019), as well as the ongoing perceptions of how the organization attends to the needs of their employees and upholds promises (Sun et al., 2019).

By examining theories of engagement, we can draw some potential conclusions about how effective socialization practices bolster employee engagement. For example, the Needs-Satisfaction Framework follows that employees are more engaged when they feel the nature of their work and the work environment facilitate meaningfulness (individual effort and the collective environment matter), provides safety (physical and psychological), and provides availability of necessary resources to do work effectively (physical, psychological, and emotional) (Kahn, 1990; Sun, 2019). This relates to socialization in that its operation initiates the role learning process for newcomers (Jones et al., 1986; Van Maanen et al., 1979). During this timeframe newcomers begin to form an understanding of what is required of them, as well as an understanding of what is needed of them and what they need from the organization to be effective in their role (Jones et al., 1986, Perrot et al., 2012; Van Maanen et al., 1979). From this greater understanding of their role and the organization at large, newcomers form opinions about their job (Jones et al., 1986). Essentially, after onboarding is completed, newcomers should have an initial understanding of the work they do, as well as what constitutes employee engagement and its importance within their organization.

With regards to the Job-Demands Resource Model, this theory extends that an employee’s effort and engagement relies on the salience how an employee believes the
demands of the job (physical, cognitive, psychological, social, emotional, etc.) are consistent with the available resources to reach work goals, handle or reduce the demands of the job, and excel personally (Bakker et al., 2003; Sun et al., 2019). This relates to socialization in that its operation provides newcomers with specific knowledge about their role within the organization, as well as important relationships and the tasks that pertain to their role (Jones et al., 1986, Perrot et al., 2012; Van Maanen et al., 1979). In doing so, the organization provides newcomers an idea of the nature and demands of the job, as well as how and where to find the resources they feel they need to be able to engage with their work. To this end, the socialization process initiates the schema newcomers have with regards to what their job is and how it works. Furthermore, newcomers’ appraisals of available job resources and the demands of the job, begins to form during socialization.

Finally, with regards to Social Exchange Theory (Levinson, 1965), an appraisal of engagement is influenced and resultant of the social exchanges between the employee and their employer. More to this point, when an employee is hired there exists the social exchange of needing a job to fill (employer) and the need for a job (employee). From here, an employee is asked to do a job and is paid to fulfill it, which results in a sense of responsibility in the employee to continue to do the work (Masterson et al., 2000; Sun et al., 2019). This sense of obligation begins to form as early as an employee is selected (if not even slightly before). To this point, considering socialization starts at the beginning of a newcomer’s journey, it is likely that these early on, consistent, social exchanges influence, if not initiate, employees’ internal appraisals of engagement.
Essentially, employee engagement is impacted by the interaction between the individual and organizational members, the demands of the job, and facilitatory organizational factors (Bakker et al., 2003; Khan, 1990; Levinson, 1965; Masterson et al., 2000; Sun et al., 2019). To this end, the operation of socialization process makes employees aware of what their job entails, which creates heir basis for judgement. Moreover, the exposure new employees have with their organization during socialization directly relates to employees initial engagement in their work. For this the following the hypothesis is proposed:

**Hypothesis 9:** Institutionalized socialization tactics will be positively related to and significantly predictive of participant engagement scores.

Figure 10.

*The Relationship Between Institutionalized Socialization Tactics and Engagement.*

Despite the clear conceptual link between socialization and engagement, some research has demonstrated a lack of empirical support for the relationship. For example, Saks et al. (2010) examined the relationship between socialization tactics and the outcomes of perceived job and organizational fit, self-efficacy, emotions and engagement. The results of the study indicated strong and positive associations between socialization with all outcomes except engagement (Saks et al., 2010). A possible impacting factors influencing the lack of a significant relationship between these two variables could be the sample used. The sample used in Saks et al. (2010) consisted of...
140 co-op university students from the same university and within the same field of study and program. It is possible that these similarities reduced the direct impact socialization has on engagement. It is also important to note that the other outcomes variables of socialization examined in Saks et al. (2010), were identified as potential mediators between socialization and engagement. Overall, the results of Saks et al. (2010) highlight a major purpose of this study, “What variables mediate the relationship between socialization and engagement?” The next subsection addresses this question by first establishing the relationship each individual variable included in STARS has with engagement, the potential roles they play as mediators between socialization and engagement, the relationship job embeddedness has with engagement, as well as the role of job embeddedness as a mediator between socialization, STARS, and engagement.

**Linking Engagement Through STARS and Job Embeddedness**

In addition to establishing the direct relationship between socialization and engagement it is important to consider the roles that STARS and job embeddedness have. As suggested by Sun et al. (2019) and Saks et al. (2010) engagement is more distally related to the initial processes that new employees undergo. Two major reasons why this notion is supported focus on the fact that other individual and dispositional factors contribute to differences in employee engagement (Bakker et al., 2006; Christian et al., 2011; Gan et al., 2014; Kahn, 1990; Langelaan et al., 2006; May et al., 2004; Paek et al., 2015; Rich et al., 2010; Roof, 2015; Simbula et al., 2011; Sun et al., 2019; Thompson et al., 2015; Xanthopoulou et al., 2009), and the second is that more accurate appraisals of engagement may require new employees to be in their roles for a longer period (Boswell, 2005; Louis 1980; Mackay et al., 2017; Saks et al., 2010; Sun et al., 2019; Yoon & Lawler, 2006;).
To the first point, research in the area of engagement focuses largely on individual factors influencing employee engagement such as personality and other individual trait variables (Bakker et al., 2006; Christian et al., 2011; Gan et al., 2014; Kahn, 1990; Langelaan et al., 2006; May et al., 2004; Paek et al., 2015; Rich et al., 2010; Roof, 2015; Simbula et al., 2011; Sun et al., 2019; Thompson et al., 2015; Xanthopoulou et al., 2009). From a practical standpoint, the research may enter a hall of mirrors issue (Cronbach, 1959) if research on engagement fixates on solely individual factors that contribute to engagement. To put it humorously, looking for employees who potentially have the most engagement inside of them, may be a fruitless lesson in utility.

From a scientist and researcher perspective, an issue with relying on studying intrapersonal characteristics is that engagement is also affected by work events, the work environment, and life events. Moreover, some of the variables examined have little to do with the actual work being done at the organization, and or may not be readily generalizable to all types of work (even if generalizable to employees’ dispositional qualities). Although this study’s interest is not so bold as to examine a myriad of work events or the infinite number of other life events that influence the relationship between individual variables and engagement, it is interested in the impact that perceptions related to the work environment have with engagement. To this end, it is important to consider how employee role related perceptions relate to appraisals of engagement. Specifically, what are STARS roles in the relationship between socialization and engagement?

Conceptually speaking, social integration relates to engagement because appraisals of engagement are affected by the relationships employees have with other organizational members (Allen, 2006; Bakker et al., 2003; Fang et al., 2011; Khan, 1990;
Levinson, 1965; Masterson et al., 2000; Morrison, 2002; Sun et al., 2019). Not only do interpersonal relationships facilitate the dissemination of knowledge, but they also operate as indicators of the work environment (Morrison, 2002; Perrot et al., 2012). Conceivably, an employee’s level of social integration is an indicator of how engaged they are with the interpersonal factors that exist within the organization (Morrison, 2002).

To this end, if employees are more socially integrated they are more likely to be engaged in their work in comparison to an employee who does not feel socially integrated. From a theoretical standpoint, this notion is supported by Social Exchange Theory (Levinson, 1965; Masterson et al., 2000) as well as Relational Cohesion Theory (Lawler et al., 1993). In consideration of both theories, the more interactions individuals have with other organizational members, the greater their vested interest in those individuals and their organization, as well as the greater the engagement they have in their job.

To a similar extent, employees feelings of task mastery, autonomy, role clarity, and satisfaction with socialization also influence employees engagement. For task mastery, autonomy, and role clarity each variable is impacted by the knowledge, skills, control, and understanding that employees have within their role and job. To this end, these variables relate to the theories of Needs-Satisfaction Framework and Job-Demands Resource model. Specifically, employee engagement is affected by the relationship between what an employee needs to do their role effectively (Khan, 1990) as well as the relationship between the job demands and the resources the organization provides to employees to fulfill their job roles (Bakker et al., 2006). Conceivably, when employees feel that they have mastered the tasks of their job, have control over their role and decision-making power, as well as are clear on what their role entails; they will be more
engaged. Essentially, the extent to which employees have a comprehensive understanding of their role the more engaged they will be over employees who report lower task mastery, autonomy, and role clarity.

Finally, satisfaction with the socialization process relates to engagement based on similar inferences that link socialization to the formation of job attitudes. Because the socialization process initiates the development of employee job attitudes, it follows that their affective state following the end of the formal socialization process relates to their work-related job attitudes (in this case engagement) (Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Judge et al., 2012; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Perrot et al., 2012; Van Maanen & Schien, 1979). However, because this relationship has not been examined exclusively, this study aims to establish this link empirically. With this in mind, the following hypothesis is proposed:

**Hypothesis 10:** STARS (social integration, autonomy, task mastery, role clarity, and satisfaction with socialization) will be positively related to and significantly predictive of participant engagement scores.

Figure 11.

*The Relationship Between STARS and Engagement.*

Next, it is important to consider the temporal linkage between socialization and engagement. From a performance perspective, in general employee performance takes time to essentially even out (Boswell, 2005; Louis 1980; Yoon & Lawler, 2006). To put
another way, accurate appraisals of employees’ engagement may also require a greater passage of time of employees operating in their role (Boswell, 2005; Louis 1980; Sun et al., 2019; Yoon & Lawler, 2006). Essentially, the end of the socialization process may only accurately represent how satisfied employees are with the socialization process and the experiences they had up to that point. To this end, this study looks to provide greater theoretical and empirical support for the progression of the relationship from employee perceptions of the socialization process to engagement. For this study, the progression is explained through STARS and job embeddedness.

Regarding STARS, the link between socialization and engagement is facilitated by social integration, task mastery, autonomy, role clarity, and satisfaction with socialization. As explained fully previously, collective, formal, sequential, fixed, serial, and investiture socialization approaches facilitates social integration, prepares employees for their tasks, informs them of the level of control they have in their role, clarifies their role responsibilities, and results in some attitudinal apprises of the process of socialization (Allen, 2006; Bakker et al., 2003; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Judge et al., 2012; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Perrot et al., 2012; Sun et al., 2019; Van Maanen & Schien, 1979). Also, as explained more thoroughly above, the extent to which employees feel that they have integrated socially, mastered the tasks of their job, understand the autonomy associated with their role, clearly understand their role, and enjoy the socialization process, the more likely they are to feel engaged in their role (Bakker et al., 2006; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Judge et al., 2012; Khan, 1990; Lawler et al., 1993; Levinson, 1965; Masterson et al., 2000; Morrison, 2002; Ng et al., 2008; Peltokorpi, 2022; Perrot et al.,
2012; Van Maanen & Schien, 1979). Still, this specific relationship, the relationship between institutionalized socialization and engagement mediated by STARS, has not been investigated. Based on the previous arguments and given Hypothesis 8 and Hypothesis 10 the following research question is proposed:

**Research Question 2:** Do socialization outcomes (autonomy, newcomer satisfaction, role clarity, social integration, and task mastery) mediate the relationship between socialization tactics and employee engagement?

In addition, to the role STARS play, job embeddedness is also examined as a mediator between socialization and engagement. In part, the argument for job embeddedness as a mediator is supported as it helps to address the temporal relationship proposed between socialization and engagement and has been shown to mediate other relationships involving socialization.

As mentioned previously job embeddedness has been shown to be predictive of turnover intentions (Ahmad et al., 2019; Crossley et al., 2007; Harris et al., 2011; Jiang, 2012; Karatepe et al., 2016), as well as work commitment, actual turnover, and job satisfaction (Allen et al., 2013; Crossley et al., 2007; Harris et al., 2011; Jiang, 2012; Lee et al., 2004; Mitchell et al., 2001). In addition, Research on job embeddedness has also indicated its power in predicting voluntary turnover beyond other related variables (intention to search, intention to quit, perceived alternatives, and job satisfaction) (Crossley et al., 2007). Similarly, engagement has also been supported as a higher-level job attitude in that it accounts for greater and more unique variance in similar employee-related outcomes as job embeddedness (Mackay, 2017). However, job embeddedness and engagement have not been compared for predictive power among the same outcomes.
In consideration of the temporal relationship between socialization and engagement, job embeddedness may act as a mediator. Conceptually speaking, this study posits that socialization facilitates the basis for the appraisals new employees have regarding their feelings of fit within the organization, the nature and quality of the links they have within the organization, as well as contributes to the value they place on their job (Ahmad et al., 2019; Allen et al., 2013; Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001). In turn, employees feelings related to job embeddedness (fit, links, sacrifice) result in their level of engagement. To this end, employees who are socialized through institutionalized approaches will be more embedded in their work, which results in them being more engaged. Conversely, employees socialized through individualized approaches will be less embedded and therefore less engaged. Although not empirically tested, some findings that support this relationship come from Afsar et al., (2016), Harris et al. (2011), Allen et al. (2013), as well as Saks et al. (2010). For example, job embeddedness has been identified as a moderator of the relationships of person-organization fit and organizational citizenship behaviors as well as perceived organizational support and organizational citizenship behaviors (Afsar et al., 2016). In addition, it has been substantiated and supported as a mediator of the relationships between LMX and job satisfaction, as well as turnover intentions and actual turnover (Harris et al., 2011), and the relationship between socialization tactics and commitment (Allen et al., 2013). Finally, from Saks et al. (2010) indicate that there is an indirect relationship between socialization and engagement through person-job fit perceptions. In consideration with the facets of job embeddedness, the component of “fit” is conceptually
aligned job embeddedness, which indicates job embeddedness as a sound mediator explaining the relationship between socialization and engagement.

In consideration of STARS, job embeddedness may also or more appropriately act as a mediator between STARS and engagement. Although unexamined within the literature, the conceptual argument follows that socialization results in the proximal outcomes of STARS (Chao et al., 1994; Fang et al., 2011; Gruman et al., 2006; Jones, 1986; Morrison, 2002; Perrot et al., 2012; VanMaanen & Schein, 1979). STARS mediates the relationship between socialization and job embeddedness (Crossley et al., 2007; Fang et al., 2011; Jiang, 2012; Mitchell et al., 2001; Morrison, 2002; Peltokorpi, 2022), and in turn job embeddedness acts a mediator between STARS and engagement. To this end, when employees are socialized through institutionalized approaches, they report higher degrees of STARS, the positive appraisals new employees have with regards to STARS explains the positive relationship between socialization and job embeddedness, and finally the positive relationship between employee appraisals of STARS and engagement is explained by employees positive appraisals of job embeddedness. To pit it even more plainly, institutionalized socialization leads to higher reported STARS, which leads to higher reported job embeddedness, which then leads to higher engagement. In order to examine the remaining pieces of this argument the following hypotheses are proposed:

Hypothesis 11: Job embeddedness mediates the relationship between institutionalized socialization tactics and employee engagement.

Figure 12.
Job Embeddedness as a Mediator of the Relationship Between Institutionalized Socialization Tactics and Engagement

Hypothesis 12: Job embeddedness mediates the relationship between socialization outcomes (social integration, role clarity, task mastery, and autonomy) and employee engagement.

In addition to understanding the relationship between socialization and engagement, this study also looks to address the efficacy of the measurement models of socialization. That being said, it is important to consider that much of the theorizing and testing of the previously addressed concepts has been conducted before the COVID-19 pandemic, and largely without the influence of online work and the virtual workspace. In particular, the socialization literature that substantiates the utility and efficacy of the measurement models relies solely on “in-person” socialization. Furthermore, although the idea of work being conducted fully in-person, virtually, and or through a hybrid approach, existed before the start of the COVID-19 pandemic; the impact of these
methods on these relationships is relatively unknown. The following section highlights the impact that virtual onboarding could have on perceptions of the socialization process and the relationships and associations between socialization and the outcomes of interest.

**Possible Influence of COVID-19**

Will institutionalized socialization be as effective when it transitions into the virtual world? The jolt online is undeniable, and the long-term implications are unknown. In many ways the COVID 19 pandemic has acted as a catalyst to this move, from which various changes to the traditional workday and the culture of interpersonal contact and social interaction have emerged. In order to understand whether institutionalized socialization works through an online or a virtual interface it is imperative to explore and examine whether there exists any association between an online socialization process and new employees’ perceptions of institutionalized socialization.

As described, much of the previous literature within the domain of socialization has been solely examined from samples of a work population that experienced socialization in person and without the social influences of COVID-19. During the pandemic, interpersonal conduct, as well as recreational and organizational social interactions were suspended through quarantine, and then only allowed under controlled restrictions and necessary circumstances (food, emergency, etc.). Quarantine mandates halted interpersonal interactions, unless deemed a necessity, and in general, the emphasis to engage in social separation was enforced and highly suggested. In this same way, the quarantine mandates forced many employers across the world to reconsider their strategies for recruitment and onboarding, as well as how to accommodate their employees adequately for the changes in the work.

Even during a time when developing relationships and engaging in human
interaction is particularly difficult, individuals still need to be recruited, selected, and on-boarded. Many organizations, domestic and global, underwent a quick transition to adapt their socialization and onboarding practice online (Carlos et al., 2022). From the pandemic two major themes were emphasized, moving work operations online and ensuring a continued interest in health and safety. Taken together the two in a sense reinforce one another. To ensure greater health and safety it makes sense to increase social distance, so a move to online work may mitigate some those concerns. Still, for new employees changes in the socialization initiatives could potentially impact how employees perceive the socialization process and influence the relationship between institutionalized socialization approaches and socialization outcomes.

As a first step to investigating the possible implications of online socialization, the association between institutionalized socialization and online socialization is explored. Throughout the literature on socialization, other members of the organization have a significant impact on the experiences of newcomers (Allen & Shanock, 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; VanMaanen & Schein, 1979). These early on interactions during socialization facilitate the acclimation of new employees (VanMaanen & Schien, 1979, Jones, 1986). If the nature of how interpersonal social exchanges occurred during socialization changes from what it had been like, the experience of the employees may also differ. To this end, by examining the association between institutionalized socialization and online socialization, the findings will provide insight on whether online socialization is related to how employees perceive institutionalized socialization.

A second step to investigating the possible influence that online socialization has
socialization, is to examine whether online socialization influences the strength of the relationships between socialization and its outcomes. An employee hired during and or after the organization adapts the socialization processes online may find it harder or easier to acclimate into their role and with the members of their network. For example, if the socialization process has been adapted to be facilitated through online or virtual modules instead of by in-person organizational members; the new employee may not experience or perceive the same process of socialization as current and past employees. In addition, although institutionalized tactics and social tactics have been shown to be significantly and positively associated with important socialization outcomes pre-COIVD (Jones et al., 1986; Morrison et al., 2002; Perrot et al., 2012; Pike et al., 2014; Saks et al., 2007), this relationship could function differently with socialization outcomes.

For example, a socialization approach that is prescribed as being formal and collective may seem to newcomers to be informal and individual due to their experience of being separated from other newcomers and current employees while proceeding through socialization. Conversely, for example, although the literature largely supports the link between collective socialization approaches and positive employee outcomes, individualized tactics may be perceived as effective in the eyes of a newcomer. Individualized approaches such as individual, random, and variable tactics may be seen as effective because those approaches can contribute to feelings of uniqueness and individuality (individual), as well as creativity and feelings of control over the onboarding process (Jones et al., 1986; Perrot et al., 2012; Pike et al., 2014). With this idea in mind, the extent to which socialization and the job is in-person, hybrid, and or virtual could also affect the impact of the perception of various socialization approaches.
Because many of the previous studies in the socialization domain have used samples from newcomers onboarded, largely, in-person, there is little known about the differential impact that onboarding through a hybrid or fully virtual environment has on newcomers. In a sense, how employees experience and perceive the socialization process also potentially affects the way new employees feel about their job knowledge and interpersonal development. To a similar extent, because online socialization may affect how new employees begin to form and understand their networks, new employees’ attitudes toward their job may also be affected.

Taken together, this study looks to explore whether an association exists between perceptions of institutionalized socialization and online socialization, as well as looks to examine whether online socialization moderates the relationship between institutionalized socialization and its outcomes.

*Research Question 3* - Is online onboarding significantly associated with institutionalized socialization approaches?

*Research Question 4* - Does online onboarding moderate the strength of relationship between institutionalized socialization approaches and STARS and or job embeddedness?

Figure 14.

*Potential Relationship Between Institutionalized Socialization Tactics and Online Onboarding*
Online Onboarding as a Moderator of the Relationships Between Institutionalized Socialization Tactics and STARS and the Relationships Between Institutionalized Socialization Tactics and Job Embeddedness

Just as important as the medium through which onboarding is transmitted, are the people that help facilitate onboarding processes. In some cases, these individuals may mentor or work with the newcomer, and in other cases the individuals may only interact with the newcomer during the onboarding stage of their work integration. To this end it is important to examine whether and how newcomers’ organizational networks relate to and affect the perspectives of newcomers, as well as understand the relationships between socialization approaches and outcomes regarding different aspects of newcomers’ networks. In the following section the concept of the egocentric network is introduced and the components of interest for this study are discussed.
Egocentric Network

Socialization initiates the development of new employees organizational networks, and as organizational networks continue develop, they influence the experiences and perceptions of new employees (Fang et al., 2011; Hatmaker, 2015; Jones, 1986; Morrison, 2002; Perrot et al., 2012; Van Maanen & Schein, 1979). Drawing from the Social Information Processing theory (Salancik & Pfeffer, 1978), employees’ attitudes, behaviors, and beliefs are strongly based on social information provided by their coworkers, family, friends, supervisors, and customers/clients. It is likely that newcomers’ first strong connections will be the facilitating members of the socialization and onboarding processes. Through the onboarding process, new employees build relationships and have a greater understanding of the shared norms, history, and culture of the group and organization at large (Allen & Shanock, 2013).

These interactions shape their understanding of their role and the culture of the organization (Allen & Shanock, 2013; Boswell et al., 2005; Fang et al., 2011; Morrison, 2002; Van Maanen, 1989). Drawing on Relational Cohesion Theory (Lawler et al., 1993), through prolonged social interactions with members of the desired group, individuals begin to identify with the goals and interests of the group, form an attachment to the group, and are motivated to learn information that allows them to mesh cohesively into the group (Allen & Shanock, 2013; Boswell et al., 2005; Van Maanen, 1989). In addition, the socialization process also forms the conceptual framework from which newcomers appraise the values of the organization and its members (Allen & Shanock, 2013; Boswell et al., 2005; Fang et al., 2011; Morrison, 2002; Van Maanen, 1989).

The guidance provided by the onboarding process and the individuals that direct it, hold a great deal of power in how new employees develop as members of the
organization, and in how they understand the organization operates (Fang et al., 2011; Hatmaker, 2015; Morrison, 2002). Essentially, each new employee forms a unique understanding of inter-organizational communication and workflow networks. These perceived relationships can be thought of as egocentric networks. Egocentric refers to the singular or single employee perspective from which the models of egocentric networks are developed (Fang et al., 2011; Hatmaker, 2015; Morrison, 2002). Network refers to the relationships between the individuals that exist within the parameters of interest (i.e., coworkers, supervisors, subordinates, and the organization at large). Information on employees’ networks is generally taken directly from the individuals of interest, and largely the questions asked of individuals’ networks pertain to the size of their network, the density of their network, the strength of the relationships (i.e., quality of relationships), the range and or types of individuals in one’s network, and status of the individuals in one’s network (Morrison, 2002). Moreover, an egocentric network refers to all the connections that make up an individual’s network, wherein the individual is the central node and each person in their network is connected to them (Fang et al., 2011; Hatmaker, 2015; Morrison, 2002).

**Impact of Egocentric Networks on Socialization**

In a large way, the maintenance of an organization’s culture is sustained through the recurrence of onboarding (Morrison, 2002). To this end, organizational socialization tactics enlist the need for organizations to effectively allocate interpersonal resources (Allen & Shanock, 2013; Boswell et al., 2005; Fang et al., 2011; Hatmaker, 2015; Morrison, 2002; Van Maanen, 1989). One contributing factor that could diminish the positive impact that onboarding has on newcomers are those that facilitate and initiate opportunities for newcomers to develop their organizational network. If the approaches
are not facilitated appropriately or from the ‘right’ individuals, newcomers may feel 
underprepared and view themselves as excluded from others. Moreover, the members 
that oversee facilitating the onboarding process for the new employees initiate the 
development of each new employee’s egocentric network as well as their social 
adjustment (Hatmaker, 2015). For this, it is imperative for organizations to consider who 
transmits information to newcomers, and the relationship they have with the newcomer 
(Fang et al., 2011; Hatmaker, 2015; Morrison, 2002).

With regards to egocentric networks, *size* refers to the total amount of connections 
an individual has within their network of interest (Morrison, 2002). Employees who have 
larger networks in turn, potentially have more interpersonal resources. The literature 
supports that an individual’s network size has a significant positive impact on their 
organizational knowledge, task mastery, role clarity, and organizational commitment 
(Morrison, 2002). Still, research in this area is understudied and is often done utilizing 
samples from the same company or organization. In this study size, is examined in terms 
of the total amount of individuals participants interact with daily, as well as by the total 
number of individuals they identify when answering other ego-centric related questions. 
*Strength* refers to the frequency of interaction and the quality of the relationship and 
information provided by the individual’s connection (Morrison, 2002). The literature 
supports that the strength of the connections in one’s network has a significant positive 
impact on their task mastery, social integration, and organizational commitment 
(Morrison, 2002). Strength is studied by asking individuals about how often they interact 
with the individuals they identify with, as well as by asking them about the quality of the 
relationship they have with those they identify. Finally, *status* refers to the prestige of and
or the hierarchy-related power of the connections in an individual’s network (Morrison, 2002). The literature supports that the status of the connections in an individual’s egocentric networks has a significant positive impact on their task mastery (Morrison, 2002). Status will be addressed by asking individuals about the position the individuals they identify hold (i.e., manager, mentor, informal mentor, etc).

In addition to the relationships between network characteristics and STARS, this study also looks to examine the influence network characteristics have on employee job attitudes. Although the research examining the impact that network characteristics have on employee job attitudes is understudied, this study posits that ego-network size, strength, and status positively influence employee job embeddedness and engagement. Ostensibly, employees with large, strong, and high-status connections would have many strong important links to their organization. Empirically, having strong interpersonal relationships is an important factor in understanding how embedded new employees become (Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001), as well as how engaged they are (Allen, 2006; Bakker et al., 2003; Fang et al., 2011; Khan, 1990; Levinson, 1965; Mackay, 2017; Masterson et al., 2000; Morrison, 2002; Sun et al., 2019). Employees with weaker ties to their network and organization are less likely to be embedded (Crossley et al., 2007; Jiang, 2012; Mitchell et al., 2001), or engaged (Allen, 2006; Bakker et al., 2003; Khan, 1990; Levinson, 1965; Mackay, 2017; Masterson et al., 2000; Sun et al., 2019), and are more likely to turnover (Allen, 2006; Bakker et al., 2003; Crossley et al., 2007; Khan, 1990; Jiang, 2012; Levinson, 1965; Mackay, 2017; Masterson et al., 2000; Mitchell et al., 2001; Sun et al., 2019). With this in mind the following hypotheses are proposed:
Hypothesis 13 - Newcomer network size will be positively related to STARS (social integration, task mastery, role clarity), job embeddedness, and engagement.

Hypothesis 14 - Newcomer network strength (frequency and quality) will be positively related to STARS, job embeddedness and engagement.

Hypothesis 15 - Newcomer network status will be positively related to STARS, job embeddedness and engagement.

Figure 16.

The Relationships Between Network Size and STARS, Job Embeddedness, and Engagement.

Figure 17.

The Relationships Between Network Strength and STARS, Job Embeddedness, and Engagement.

Figure 18.

The Relationships Between Network Status and STARS, Job Embeddedness, and Engagement.
Although examining certain raw elements of the ego-centric network offers potential insight on the relationships of interest, this study looks to extend the literature done utilizing ego-centric networks by introducing another factor that could impact an employee’s experience. This study also examines the impact of having members in one’s network that provide them with *capital*. Capital in this study will refer to social, human, and cultural capital.

**Connections with Capital**

The previously mentioned characteristics of egocentric networks are important in understanding and classifying the unique elements of an individual’s network, but other qualities of those within one’s network also influence the perceptions and outcomes of newcomers. Newcomers who develop interpersonal relationships that provide them with critical resources within their work network may lead to more effective socialization (Fang et al., 2011). Depending on the type of work, job, or organization, individuals may have just a few coworkers that provide them with valuable information and resources that can improve their experience with the organization.

Beyond the scope of these well-established network characteristics is the idea of having members that are more critical to working within one’s role. The reason these individuals can be thought of as critical is due to what resources they provide to individual employees. Employees with more resources should be better equipped to conduct their work effectively and may feel more comfortable in their role and connected
to their organization and its members. However, having the largest network may mean very little if those in one’s network are unable to provide critical resources and support. For example, simply having many Facebook, Twitter, or Instagram friends/followers does not mean you are any better at using the app or that you are truly connecting with all these people in your social media network.

During the onboarding process, and in line with relational cohesion theory, a new employee begins to interpret a great deal of new information that largely relates to their perceptions of how they, as an individual, fit, relate, and function in reference to the greater collective (Yoon & Lawler, 2006). These perceptions are shaped through the social exchanges between the new employee and the current employees, wherein the current employees provide the new employee with different types of capital (Allen & Shanock, 2013; Fang et al., 2011; Yoon & Lawler, 2006). As important as the presence and involvement of current employees in the development of a newcomer’s network, is the capital they provide newcomers (Fang et al., 2011).

Capital in this sense refers to the different types of resources relevant to newcomers, provided and transmitted by current employees to newcomers. Capital falls under three main areas which include: human capital (insights, knowledge, skills, and experiences), social capital (interpersonal relationships), and cultural capital (organizational norms, history, and organizational culture) (Yoon & Lawler, 2006). In addition to these forms of capital, other factors and resources may play a part in understanding the variability in new employee experiences, and new employee successes. For the interest of this study a connection may be viewed as critical, depending on the degree to which they provide the newcomer with work-related capital and or resources.
More specifically, this addresses the impact that having critical employees (ones who provide some type of capital to employees) has on STARS and employee job attitudes.

**Hypothesis 16 - Newcomer network social capital will be positively related to socialization outcomes.**

**Hypothesis 17 - Newcomer network human capital will be positively related to socialization outcomes.**

**Hypothesis 18 - Newcomer network cultural capital will be positively related to socialization outcomes.**

Figure 19.

*The Relationships Between Social Capital and STARS, Job Embeddedness, and Engagement.*

![Diagram of social capital relationships]

Figure 20.

*The Relationships Between Human Capital and STARS, Job Embeddedness, and Engagement.*

![Diagram of human capital relationships]
The Relationships Between Cultural Capital and STARS, Job Embeddedness, and Engagement.

Proposed Final Model

In addition to these relationships, this study looks to explore a model that reflects the relationship between socialization and engagement. In order to do so, the conceptual support for the hypothesized relationships and the research questions of interest were utilized to develop the comprehensive model (seen in figure 21 below). More specifically, institutionalized socialization facilitates the outcomes of STARS and positively contributes to the development of employees’ networks (size, strength, and status). In addition, the mediating role of STARS is examined between institutionalized socialization tactics and job embeddedness. From there, the mediating role of job embeddedness in the relationship between STARS and engagement is examined.

Employees’ network characteristics (size, strength, and status) are also explored as potential positive contributors of STARS, job embeddedness, and engagement. Additionally, the possible moderating role of online onboarding on the relationships among institutionalized socialization tactics and STARS, employee networks (size, strength, and status), and job embeddedness, respectively is explored. Finally, the
proposed positive impact that social, human, and cultural types of capital have on STARS, job embeddedness, and engagement are also reflected in the model below.

Figure 22.

*Comprehensive Model of Socialization-Engagement Model including all Hypotheses and Research Questions*
Chapter 3

Methods

Participants

The population of interest for this study is individuals socialized and onboarded during and around the time of the COVID-19 pandemic, specifically from January 2020 to present. Due to a low response rate from the snowball collection method, the data used and examined is representative of the responses from the Amazon Mechanical Turk. The final sample included 162 participants; this included fifty-three (32.7%) onboarded in 2020, sixty-three (37.7%) in 2021, and forty-eight (29.6%) in 2022. The sample consisted of fifty-seven percent male and forty-one percent female (1% prefer not to answer, prefer to self-identify, respectively). In addition, the sample consisted of fifty-two percent white/Caucasian, sixteen percent black/African American, one percent Native American/Indigenous, four percent Asian/Pacific Islander, three percent Hispanic/LatinX. Participant age ranged from twenty to sixty-eight with the average participant age being thirty-four.

Procedure

Two sampling methods were used for this study, which included data collected from Amazon Mechanical Turk (Mturk) and the snowball method. The survey questionnaire was developed in Qualtrics. A posting on Mturk was used to collect data for the Mturk sample. Mturk participants were compensated for their involvement. In addition, emails were initially sent out to members of the researcher’s network with an overview of the study as well as a link to the survey. The snowball participants were asked to forward and send the survey to members of their network. Unfortunately, the sample obtained through the snowball method was too small for comparison to the Mturk
sample and to examine the proposed relationships for meaningful significance. All participants who completed the survey were first directed to the informed consent and asked to agree to the terms of study (see Appendix B).

**Measures**

**Socialization Approaches**

**Socialization Approaches / Tactics.** Socialization tactics was measured using individual perceptions of socialization tactics are measured using Jones’s (1986) Socialization Tactics Scale. The scale consists of a 21-item Likert-type format on a five-degree rating scale (1 = strongly disagree to 5 = strongly agree). Example items include, “Other newcomers have been instrumental in helping me to understand my job requirements,” under the collective-individual continua, "I have been through a set of training experiences which are specifically designed to give newcomers a thorough knowledge of job related skills,” under the formal-informal continua, “There is a clear pattern in the way one role leads to another or one job assignment leads to another in this organization,” under the sequential-random continua, “Experienced organizational members see advising or training newcomers as one of their main job responsibilities in this organization,” under the serial-disjunctive continua, “I have a good knowledge of the time it will take me to go through the various stages of the training process in this organization,” under the fixed-variable, and “I have been made to feel that my skills and abilities are very important in this organization,” under the investiture-divestiture continua. Reliability analyses were conducted for each subscale, individually, as well as for the three and one factor models. Reliability analyses indicated a low alpha coefficient for the formal-informal subscale (α = .35). Further investigation revealed possible issues with item two, “During my training for this job I was normally physically apart from
regular organizational members,” due to the possible impact of mandatory social separation during the COVID-19 pandemic. After the item was deleted, the alpha coefficient increased to (.45), further indicating a poor reliability for the formal-informal subscale. Additional reliability analyses indicated reliable alpha coefficients for, sequential-random (α = .78), fixed-variable (α = .76) and collective-individual (α = .72); serial-disjunctive (α = .69), investiture-divestiture (α = .64) subscales were right under the general acceptable reliability alpha coefficient. Reliability analyses demonstrated acceptable alpha coefficients for the three-factor model, social (α = .78), content (α = .86), context (α = .72); a finding in line with other empirical support for the use of the three over the six-factor model (i.e., Cable and Parsons 2001; Perrot et al., 2012). In addition, reliability analyses demonstrated an acceptable alpha coefficient for the single factor model (Institutionalized, α = .88); a finding in line with other empirical support for the use of the single factor model (i.e., Gruman et al., 2006). Confirmatory factor analysis and model fit comparisons are discussed in the Results section under Preliminary Analyses. See Appendix C for full survey.

**Socialization Outcomes**

**Task Mastery.** Task mastery was measured using the 7-item adapted scale from Morrison (2002). This scale is an adaptation from the scales developed by Morrison (1993b), as well as includes three items from Chao et al., (1994). This scale was adapted to be measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Two example items include, “I have mastered the required tasks of my job,” and, "I have not fully developed the appropriate skills and abilities to successfully perform my job,” (reverse scored). Reliability analyses results indicated an acceptable alpha (α = .71). See Appendix C for full survey.
**Role Clarity.** *Role clarity* was assessed using Lyons (1971) 4-item role clarity questionnaire. This scale was adapted to be measured on a 5-point Likert scale ranging from 1 (extremely unclear) to 5 (extremely clear) and (1 = definitely not, 5 = definitely yes). Two example items include, “Do you feel you are always as clear as you would like to be about what you have to do on this job?” and “In general, how clearly defined are the policies and the various rules and regulations of the hospital (university) that affect your job?” The second example item was modified to, “In general, how clearly defined are the policies and the various rules and regulations of the organization that affect your job” (see appendix C for full list of items). Reliability analysis results indicated an acceptable alpha (α = .84). See Appendix C for full survey.

**Social Integration.** *Social integration* was measured using a 5-item social integration scale developed and adapted from Morrison (1993b) and Price & Mueller (1986) scales. This scale was adapted to be measured on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Example item includes, “I could call on members of the organization to help me with personal problems.” Reliability analysis results indicated an acceptable alpha (α = .84). See Appendix C for full survey.

**Autonomy.** Autonomy was measured using three items from the Ng et al. (2008) and one adapted from Breaugh (1985). These items are rated on a 5-point Likert scale ranging from 1 (none) to 5 (very much). Participants will be asked how much authority they had in determining how work exceptions are to be handled, establishing rules and procedures about how their work is to be done, setting quotas on how much work they must complete, and what I am supposed to accomplish (my job objectives). Reliability analysis results indicated an acceptable alpha (α = .86). See Appendix C for full survey.
**Satisfaction with socialization.** To measure satisfaction with socialization, 3 items were developed and adapted from MAOQ (Cammann et al., 1979.) will be examined using three items, “I found the socialization and onboarding process enjoyable,”, “I did not like the socialization and onboarding process at this organization,” and, “In my personal experience, the socialization and onboarding processes at my organization were helpful.” These items were rated using a 5-point Likert type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Reliability analysis results indicated an acceptable alpha (α = .84). See Appendix C for full survey.

**Egocentric Network**

Newcomer egocentric networks were examined using questions pertaining to the nature of the relationships with members at their organization. More specifically, newcomer networks **size**, was measured using the item, “How many members of your organization do you interact with on a regular basis?” In addition, participants were asked to fill in up to ten individuals that they consider to be within their network.

**Strength** was measured using the following items, “In the table below, please choose the option that best represents how often you communicate with each member you identified,” and, “In the table below, please choose the option that represents the quality of your relationship with each member.” The first strength question asks participants to answer ranging from daily to annually (1 = daily, 8 = annually; scores were reverse coded in analyses). The second strength question asked participants to answer on a Likert type scale (1=very bad, 5=very good).

**Status** was measured by asking participants whether the members they identified are their subordinate, assistant, coworker, supervisor/manager, or upper-level manager. Also, participants will be asked to identify if any of the members they are formal and or
informal leaders, mentors, friends, and or colleagues. In addition, the impact of the mode of communication with these members, and the extent to which they provide newcomers with critical resources and capital was examined (see Appendix C for full question list). Specifically, participants were asked to identify the extent which members provide them with social, organizational, and human capital. These items were measured using a 5-point Likert type scale (1=never, 5=always).

*Job Attitudes*

**Job Embeddedness.** Job embeddedness was measured using two scales, the 7-item Global measure of Job Embeddedness from Crossley et al., (2007), and the 34-item Job Embeddedness Scale from Lee et al., (2004). The global measure of job embeddedness will be scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Two example items of the global measure include, “I feel tied to this organization,” and, “I am tightly connected to this organization.” The reliability analysis results for the Global measure of Job Embeddedness scale indicate an acceptable alpha coefficient of (α = .89).

The job embeddedness scale includes both on-the-job and off-the job, fit, links, and sacrifices. For the purposes of this study the facets of on and off-the-job sacrifice and fit are measured. Although links are an important facet, the scaling of these items are not readily modifiable for Likert-type scales. Furthermore, insights about the newcomers’ links will be drawn and expanded upon from examining aspects of newcomers’ egocentric network. An example item on-the-job fit includes, “I feel like I am a good match for this organization,” and an example item off-the-job fit includes, “I like the family-oriented environment of my community.” An example item on-the-job sacrifices includes, “I have a lot of freedom in this job to decide how to pursue my
goals,” and an example item off-the-job sacrifice includes, “People respect me a lot in my community.” Reliability analysis results indicated acceptable alpha coefficients for on-the-job embeddedness fit (α = .90) and sacrifice (α = .88), as well as off-the-job fit (α = .91) and sacrifice (α = .74). See Appendix C for full survey.

Engagement. Engagement was measured using the 9-item Utrecht Work Engagement scale from Schaufeli et al. (2006). This scale will be scored on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Some example items include, “In my job, I feel strong and vigorous,” under vigor, “I find the work that I do full of meaning and purpose,” under dedication, and “When I am working, I forget everything else around me,” under absorption. The reliability analysis results indicated an acceptable alpha coefficient (α = .94). See Appendix C for full survey.

Additional variables. This study also collects information pertaining to varying degrees of participant employment status, socialization delivery format (virtual, hybrid, in-person), the time onboarded, time in current role, race, gender, highest level of education, and socioeconomic status (see Appendix C for full survey).
Chapter 4

Results

Preliminary Analyses

As mentioned previously the data used and examined is representative of the responses from a sample collected through Amazon Mechanical Turk. Data cleaning and analyses were conducted using Microsoft Excel and R. First, participants with ineligible onboarding responses (2019 or earlier) and unintelligible open response answers were removed. Individuals who missed more than one of the three attention checks were removed; supplementary, all responders who missed at least one attention check, were examined for other response irregularities and removed. After this step the sample consisted of 174 valid responses.

Finally, due to the total amount of variables and proposed analyses, Mahalanobis D was calculated to identify multivariate outliers utilizing the careless R package (see Appendix F for full R code). Mahalanobis D indicates the total Euclidean distance of responders’ data given a comprehensive mean score based on the total variables included in the examined data set (Meade et. al., 2012). All responders with a Mahalanobis D greater than thirty-six were removed. The final dataset included responses from 162 participants. In addition to the preliminary data cleaning, three CFAs were conducted to examine the model fit of the single, three, and six factor models.

Research Question and Hypothesis Results

Model Fit Comparisons

To examine the first research question, “Which socialization tactics model has the greatest fit?”, the three models were examined using three separate confirmatory factor analyses (CFA). First, the six-factor model made up of the six continuum (collective-
individual, formal-informal, sequential-random, serial-disjunctive, investiture-divestiture, fixed-variable) was examined. The model resulted in one Haywood case, and the resulting variance was constrained to be positive. The results of the six-factor CFA indicated a poor model fit, $\chi^2 (390) = 1559.97$ with an RMSEA = 0.121 90%CI = (0.114, 0.128), and a Tucker-Lewis Index of 0.55. Next, the three-factor model (social, content, context) was examined. The results of the CFA indicated a poor model fit, $\chi^2 (402) = 1405.95$ with an RMSEA = 0.126 90%CI = (0.119, 0.133), and a Tucker-Lewis Index of 0.508 indicating that correlation structure is adequate for factor analyses. Lastly, the single factor model (Institutionalized) was examined. The results of the CFA indicated a poor model fit, $\chi^2 (405) = 1559.97$ with an RMSEA = 0.134 90%CI = (0.127, 0.141), and a Tucker-Lewis Index of 0.44.

Chi-squared function model comparison were conducted between the single and three factor models. Because of the Haywood case the six-factor solution was not compared. Results indicated a significant difference between the two models with the single factor fitting significantly worse than the 3 factor, delta $\chi^2 (3) = 154.02, p < .05$. Based on these results a bifactor model was run with the three factors and a global socialization factor. The results indicated a poor model fit, $\chi^2 (425) = 2642.65$ with an RMSEA = 0.075 90%CI = (0.067, 0.084), and a Tucker-Lewis Index of 0.823. As this model fits the best, it supports the idea of both a global socialization factor in addition to three or more factors. Analyses will focus on the global factor, except where otherwise specified in the hypotheses.

**Relationships Between Socialization Tactics, STARS, Embeddedness and Engagement**

To examine Hypotheses 1-7, correlational and regression analyses were conducted. The first hypothesis examined the relationship between the institutionalized
socialization tactics and the socialization outcome variables of interest (social integration, task mastery, autonomy, and role clarity), utilized the one factor socialization tactics model. Results of the correlational analyses indicated that the institutionalized socialization tactics were positively correlated with social integration ($r = .57$, $p<.05$), task mastery ($r = .48$, $p<.05$), autonomy ($r = .35$, $p<.05$), and role clarity ($r = .64$, $p<.05$). These results indicate support for Hypothesis 1.

Hypotheses 2 and 3 examined the relationship between the social and content socialization tactics and socialization outcomes (social integration, task mastery, autonomy, and role clarity), respectively. Results of the correlational analyses indicated statistically positive relationships between social tactics and social integration ($r = .64$, $p<.001$), task mastery ($r = .54$, $p<.05$), and role clarity ($r = .46$, $p<.05$). The relationship between social tactics and autonomy was positive but not statistically significant ($r = .11$, $p = .09$), indicating partial support for Hypothesis 2. In addition, results of the correlational analyses indicated that content tactics were positively related to social integration ($r = .41$, $p<.05$), task mastery ($r = .35$, $p<.05$), autonomy ($r = .41$, $p<.05$), and role clarity ($r = .60$, $p<.05$), indicating partial support for Hypothesis 3 (see Table 1).

Table 1.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>0.60</td>
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<tr>
<td>Tactics</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Social Tactics</td>
<td>3.54</td>
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<td></td>
<td>.75**</td>
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<tr>
<td>Content Tactics</td>
<td>3.46</td>
<td>0.83</td>
<td>.89**</td>
<td>.52**</td>
<td></td>
<td></td>
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<tr>
<td>Context Tactics</td>
<td>3.33</td>
<td>0.68</td>
<td>.70**</td>
<td>.20**</td>
<td>.53**</td>
<td></td>
</tr>
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### Hypotheses and Findings

#### Socialization Tactics and Satisfaction with Socialization

<table>
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<tr>
<th>Variable</th>
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<th>SD</th>
<th>Correlation (r)</th>
<th>p Value</th>
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</thead>
<tbody>
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</tr>
<tr>
<td>Task Mastery</td>
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<td>.48**</td>
<td>&lt;.01</td>
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<tr>
<td>Autonomy</td>
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<td>1.03</td>
<td>.35**</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>4.17</td>
<td>0.75</td>
<td>.64**</td>
<td>&lt;.01</td>
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<tr>
<td>Satisfaction with Socialization</td>
<td>3.76</td>
<td>0.95</td>
<td>.69**</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

Note. N = 162. M and SD are used to represent mean and standard deviation, respectively. * indicates p < .05. ** indicates p < .01.

Hypotheses 4 examined the relationship between socialization tactics and satisfaction with socialization and was analyzed using correlation and regression analyses. Results of the correlational analysis indicated a significant correlation between the variables (r = .69, p < .01), indicating support for Hypothesis 4. The implications of these findings are further discussed in the Discussion section. Hypothesis 5 examined the association between satisfaction with socialization and social integration, task mastery, autonomy, and role clarity. Results from the correlational analyses indicated significant and positive associations between satisfaction with socialization and social integration (r = .58, p < .01), task mastery (r = .40, p < .01), autonomy (r = .28, p < .01), and role clarity (r = .58, p < .01), indicating full support for Hypothesis 5.

### The Impact of Institutionalized Socialization Tactics and STARS on Job Embeddedness

Hypothesis 6 examined the relationship between institutionalized socialization tactics and job embeddedness. Results of the correlation analysis demonstrated a significant correlation between the variables (r = .36, p < .01), indicating full support for
Hypothesis 6. See Table 2 for summary of significant relationships observed for hypotheses 4-6).

Table 2.

**Means, Standard Deviations and Correlations Between Job Embeddedness, Socialization Tactics and STARS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Embeddedness (global)</td>
<td>3.12</td>
<td>1.13</td>
<td></td>
</tr>
<tr>
<td>Institutionalized Tactics</td>
<td>3.45</td>
<td>0.60</td>
<td>.38**</td>
</tr>
<tr>
<td>Social Integration</td>
<td>4.13</td>
<td>0.75</td>
<td>.50**</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>4.00</td>
<td>0.75</td>
<td>.08</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.41</td>
<td>1.03</td>
<td>.49**</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>4.17</td>
<td>0.75</td>
<td>.30**</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>3.76</td>
<td>0.95</td>
<td>.42**</td>
</tr>
</tbody>
</table>

*Note. N = 162. M and SD are used to represent mean and standard deviation, respectively. * indicates p < .05. ** indicates p < .01.*

Hypothesis 7 examined the relationship between STARS and job embeddedness. In order to examine Hypothesis 7, five separate correlation and regression analyses were conducted. Results from the multiple Pearson's R correlational analyses indicated a positive and significant relationship between job embeddedness and social integration (r = .50, p < .01), autonomy (r = .49, p < .01), role clarity (r = .30, p < .01), as well as satisfaction with socialization (r = .42, p < .01); however, task mastery was not (r = .08, p = .3), indicating only partial support for Hypothesis 7. In addition, a multiple regression
analysis was conducted to examine the variance in job embeddedness scores explained by STARS, collectively. Results of the multiple regression indicated significance for the model (R² = .42, F (5, 154) = 21.96, p < .001). Of the variables examined social integration (b = .611, p < .01), task mastery (b = -.382, p < .01), autonomy (b = .325, p < .001), and satisfaction with socialization (b = .223, p < .05) were significant predictors of job embeddedness. Role clarity was not a significant predictor (b = .042, p = .75).

Altogether these results indicate partial support for Hypothesis 7 (see Table 3 below).

Table 3

Regression Results Using Job Embeddedness as the Criterion and STARS as Predictors

<table>
<thead>
<tr>
<th>Predictor</th>
<th>b</th>
<th>95% CI [LL, UL]</th>
<th>beta</th>
<th>95% CI [LL, UL]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>0.00</td>
<td>[-0.81, 0.90]</td>
<td>0.41</td>
<td>[0.23, 0.57]</td>
</tr>
<tr>
<td>Social Integration</td>
<td>0.61**</td>
<td>[0.34, 0.86]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Mastery</td>
<td>-.38**</td>
<td>[-0.60, -0.16]</td>
<td>-0.25</td>
<td>[-0.40, -0.11]</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.33**</td>
<td>[0.15, 0.49]</td>
<td>0.30</td>
<td>[0.14, 0.46]</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>0.04</td>
<td>[-0.20, 0.27]</td>
<td>0.03</td>
<td>[-0.13, 0.19]</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>0.22*</td>
<td>[0.04, 0.43]</td>
<td>0.19</td>
<td>[0.03, 0.36]</td>
</tr>
</tbody>
</table>

*Note. A significant b-weight indicates the beta-weight and semi-partial correlation are also significant. b represents unstandardized regression weights. beta indicates the standardized regression weights. LL and UL indicate the lower and upper limits of a confidence interval, respectively. * indicates p < .05. ** indicates p < .01.

To examine Hypothesis 8, “STARS (social integration, autonomy, task mastery, role clarity, and satisfaction with socialization) will significantly mediate the relationship between socialization tactics and job embeddedness,” a multiple regression analysis and
five individual mediation analyses were conducted. First, a multiple regression analysis was conducted to examine the variance in job embeddedness scores explained by institutionalized socialization tactics and STARS. Results of the multiple regression indicated significance for the model ($R^2 = .42$, $F (6, 153) = 18.22, p < .001$). Of the variables examined social integration ($b = .608, p< .01$), task mastery ($b = -.389, p< .01$), autonomy ($b = .320, p< .01$) were significant predictors of job embeddedness. Satisfaction with socialization, institutionalized socialization tactics, and role clarity were not significant predictors (see Table 4 below). Next, five mediation analyses were conducted using PROCESS MACRO.

Table 4

*Regression Results Using Job Embeddedness as the Criterion with Institutionalized Socialization STARS as Predictors*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$b$</th>
<th>95% CI [LL, UL]</th>
<th>$\beta$</th>
<th>$\beta$ 95% CI [LL, UL]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>-0.05</td>
<td>[-0.92, 0.96]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Institutionalized Socialization</td>
<td>0.07</td>
<td>[-0.35, 0.44]</td>
<td>0.04</td>
<td>[-0.18, 0.24]</td>
</tr>
<tr>
<td>Social Integration</td>
<td>0.61**</td>
<td>[0.33, 0.88]</td>
<td>0.41</td>
<td>[0.21, 0.58]</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>-0.39**</td>
<td>[-0.62, -0.14]</td>
<td>-0.26</td>
<td>[-0.40, -0.09]</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.32**</td>
<td>[0.14, 0.48]</td>
<td>0.29</td>
<td>[0.13, 0.44]</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>0.03</td>
<td>[-0.22, 0.27]</td>
<td>0.02</td>
<td>[-0.14, 0.18]</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>0.20</td>
<td>[-0.02, 0.48]</td>
<td>0.17</td>
<td>[-0.02, 0.39]</td>
</tr>
</tbody>
</table>

*Note.* A significant $b$-weight indicates the beta-weight and semi-partial correlation are also significant. $b$ represents unstandardized regression weights. $\beta$ indicates the
standardized regression weights. \( LL \) and \( UL \) indicate the lower and upper limits of a confidence interval, respectively. * indicates \( p < .05 \). ** indicates \( p < .01 \).

The approach developed by Hayes (2013) was used to examine the indirect and direct relationship between socialization tactics and job embeddedness through the individual variables STARS. The first meditation analyses examined social integration as the mediator between institutionalized socialization tactics and job embeddedness. Results indicated that institutionalized socialization was a significant predictor of social integration (\( b = 0.710, SE = 0.08, p < .001 \)). When institutionalized socialization and social integration were entered into the model with job embeddedness as the outcome, institutionalized socialization was not a significant predictor of job embeddedness (\( b = 0.26, SE = 0.16, p = .10 \)); social integration was significantly predictive of job embeddedness (\( b = 0.64, SE = 0.12, p < .001 \)). Results indicated that the indirect effect between institutionalized socialization and job embeddedness through social integration was significant with the indirect effect’s 95%CI not including zero (\( b = 0.45, \text{BootSE} = 0.1040, \text{BootLLCI} = 0.2026, \text{and BootULCI} = 0.6133, p < .01 \)), indicating support for the mediating role of social integration between institutionalized socialization and job embeddedness.

The second meditation analysis examined task mastery as the mediator between institutionalized socialization tactics and job embeddedness. Results indicated that institutionalized socialization was a significant predictor of task mastery (\( b = .59, SE = 0.09, p < .001 \)). When institutionalized socialization and task mastery were entered into the model with job embeddedness as the outcome, institutionalized socialization was a significant predictor of job embeddedness (\( b = 0.82, SE = 0.16, p < .001 \)), but task mastery was not a significant predictor of job embeddedness (\( b = -.19, SE = 0.13, p = \)
.13). The indirect effect between institutionalized socialization tactics and job embeddedness through task mastery was not significant with the indirect effect’s 95%CI including zero ($b = -0.11$, BootSE = 0.0787, BootLLCI = -.2856 and BootULCI = .0241, $p < .01$). These results indicate a lack of support for the mediating role of task mastery between institutionalized socialization tactics.

The third mediation analyses examined autonomy as the mediator between institutionalized socialization tactics and job embeddedness. Results indicated that socialization tactics was a significant predictor of autonomy ($b = 0.607$, SE = 0.128, $p < .001$). When institutionalized socialization tactics and autonomy were entered into the model with job embeddedness as the outcome, institutionalized socialization tactics was a significant predictor of job embeddedness ($b = 0.44$, SE = 0.14, $p < .01$), autonomy was as well ($b = 0.45$, SE = 0.12, $p < .001$). In addition, the indirect effect between institutionalized socialization tactics and job embeddedness through autonomy was significant with the indirect effect’s 95%CI not including zero, ($b = 0.27$, BootSE = 0.1040, BootLLCI = .1128 and BootULCI = .4485, $p < .01$), indicating support for the mediating role of autonomy.

The fourth meditation analyses examined role clarity as the mediator between institutionalized socialization tactics and job embeddedness. Results indicated that socialization tactics was a significant predictor of role clarity ($b = 0.79$, SE = 0.08, $p < .001$). When institutionalized socialization tactics and role clarity were entered into the model with job embeddedness as the outcome, institutionalized socialization was a significant predictor of job embeddedness ($b = 0.59$, SE = 0.18, $p < .01$), but role clarity was not a significant predictor of job embeddedness ($b = .15$, SE = 0.14, $p = .29$). The
indirect effect between institutionalized socialization tactics and job embeddedness through role clarity was not significant with the indirect effect’s 95%CI including zero ($b = .15, \ SE = 0.14, p = .29, \ BootSE = 0.1291, \ BootLLCI = -.1261 \ and \ BootULCI = .3799$).

These results indicate a lack of support for the mediating role of task mastery between institutionalized socialization tactics.

The fifth meditation examined satisfaction with socialization as the mediator between institutionalized socialization tactics and job embeddedness. Results indicated that institutionalized socialization tactics was a significant predictor of satisfaction with socialization ($b = 1.10, \ SE = 0.09, \ p < .001$). When institutionalized socialization tactics and satisfaction with socialization were entered into the model with job embeddedness as the outcome, institutionalized socialization tactics was no longer a significant predictor of job embeddedness ($b = 0.32, \ SE = 0.19, \ p = .09$); satisfaction with socialization was significantly predictive of job embeddedness ($b = 0.36, \ SE = 0.12, \ p < .01$). Results indicated that the indirect effect between institutionalized socialization tactics and job embeddedness through satisfaction with socialization was significant with the indirect effect’s 95%CI not including zero, ($b = 0.39, \ BootSE = .1499, \ BootLLCI = .0943 \ and \ BootULCI = 0.6758, \ p < .01$), indicating support for the mediating role of satisfaction with socialization between institutionalized socialization tactics and job embeddedness.

Overall, the results indicate partial support for Hypothesis 8.

*The Impact of Institutionalized Socialization Tactics, STARS, and Job Embeddedness on Engagement*

Hypothesis 9 examined the relationship between institutionalized socialization tactics and engagement. Results of the correlational and regression analyses indicated a
positive and significant relationship between institutionalized socialization tactics and engagement \( (r = .51, p < .01) \), as well as the predictive significance of institutionalized socialization tactics on engagement scores \( (R^2 = .26, F(1, 156) = 54.40, p < .001) \); indicating support for Hypothesis 9.

Hypothesis 10 examined the relationship between STARS and engagement. In order to examine Hypothesis 10, five separate correlation analyses and a multiple regression analysis were conducted. Results from the multiple Pearson's R correlation analyses indicated a positive and significant relationship between engagement and social integration \( (r = .58, p < .01) \), task mastery \( (r = .30, p < .01) \) autonomy \( (r = .46, p < .01) \), role clarity \( (r = .47, p < .01) \), as well as satisfaction with socialization \( (r = .59, p < .01) \); indicating support for Hypothesis 10. In addition, a multiple regression analysis was conducted including each socialization outcome, STARS. The results of the multiple regression analysis indicated significance for the model \( (R^2 = .49, F(5, 152) = 29.72, p < .001) \). When all predictors were included in the model, role clarity \( (b = 0.13, SE = 0.11, p = .26) \) and task mastery \( (b = -0.08, SE = 0.11, p = .45) \) were not significant predictors of engagement. Social integration \( (b = 0.39, SE = 0.11, p < .01) \), autonomy \( (b = 0.25, SE = 0.07, p < .001) \), and satisfaction with socialization \( (b = 0.37, SE = 0.09, p < .001) \), all explained significant and unique variance in engagement scores, indicating partial support for Hypothesis 10 (see Table 6). Table 5 below depicts the correlations among STARS, job embeddedness and engagement, and Table 6 summarizes the results of the regression for Hypothesis 10.

Table 5.

Means, Standard Deviations and Correlations Between Engagement, Job Embeddedness, Socialization Tactics and STARS
Variable          | $M$    | $SD$    | 1         |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>3.65</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td>Job Embeddedness (global)</td>
<td>3.12</td>
<td>1.13</td>
<td>.69**</td>
</tr>
<tr>
<td>Institutionalized Tactics</td>
<td>3.45</td>
<td>0.60</td>
<td>.51**</td>
</tr>
<tr>
<td>Social Integration</td>
<td>4.13</td>
<td>0.75</td>
<td>.58**</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>4.00</td>
<td>0.75</td>
<td>.30**</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.41</td>
<td>1.03</td>
<td>.46**</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>4.17</td>
<td>0.75</td>
<td>.47**</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>3.76</td>
<td>0.95</td>
<td>.59**</td>
</tr>
</tbody>
</table>

Note. $N=162$. $M$ and $SD$ are used to represent mean and standard deviation, respectively. * indicates $p < .05$. ** indicates $p < .01$.

Table 6.

Regression Results using ENG as the Criterion and STARS as Predictors

<table>
<thead>
<tr>
<th>Predictor</th>
<th>$b$</th>
<th>95% CI [LL, UL]</th>
<th>$beta$</th>
<th>95% CI [LL, UL]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>-0.41</td>
<td>[-1.21, 0.33]</td>
<td>0.28</td>
<td>[0.10, 0.44]</td>
</tr>
<tr>
<td>Social Integration</td>
<td>0.39**</td>
<td>[0.15, 0.62]</td>
<td>0.24</td>
<td>[0.10, 0.41]</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>-0.08</td>
<td>[-0.29, 0.15]</td>
<td>-0.06</td>
<td>[-0.21, 0.11]</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.25**</td>
<td>[0.10, 0.42]</td>
<td>0.24</td>
<td>[0.10, 0.41]</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>0.13</td>
<td>[-0.13, 0.32]</td>
<td>0.09</td>
<td>[-0.09, 0.24]</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>0.37**</td>
<td>[0.21, 0.54]</td>
<td>0.33</td>
<td>[0.19, 0.47]</td>
</tr>
</tbody>
</table>
**Note.** A significant $b$-weight indicates the beta-weight and semi-partial correlation are also significant. $b$ represents unstandardized regression weights. \textit{beta} indicates the standardized regression weights. \textit{LL} and \textit{UL} indicate the lower and upper limits of a confidence interval, respectively. * indicates $p < .05$. ** indicates $p < .01$.

To examine research question 2, “Do socialization outcomes (autonomy, newcomer satisfaction, role clarity, social integration, and task mastery) significantly mediate the relationship between socialization tactics and employee engagement?” five mediation analyses were conducted, as well as a dominance analysis. The first mediation analysis examined social integration as the mediator between institutionalized socialization tactics and engagement. Results indicated that institutionalized socialization tactics was a significant predictor of social integration ($b = 0.710$, SE = 0.08, $p < .001$). When social integration and socialization tactics were entered into the model with engagement as the outcome, institutionalized socialization tactics was also significant predictor of engagement ($b = 0.46$, SE = 0.13, $p < .001$); social integration was also a significantly predictive of engagement ($b = 0.60$, SE = 0.11, $p < .001$). In addition, the indirect effect between institutionalized socialization tactics and engagement through social integration was significant with the indirect effect’s 95%CI not including zero ($b = 0.43$, BootSE = 0.0880, BootLLCI = 0.2687 and BootULCI = 0.6163, $p < .01$), indicating support for the mediating role of social integration between institutionalized socialization tactics and engagement.

The second mediation analysis examined task mastery as the mediator between institutionalized socialization tactics and engagement. Results indicated that institutionalized socialization tactics was a significant predictor of task mastery ($b = .59$,}
SE = 0.09, \( p < .001 \)). When institutionalized socialization and task mastery were entered into the model with engagement as the outcome, institutionalized socialization was a significant predictor of engagement (\( b = .83, SE = 0.14, p < .001 \)), but task mastery was not a significant predictor of engagement (\( b = .10, SE = 0.11, p = .35 \)). In addition, the indirect effect between institutionalized socialization and engagement through task mastery was not significant with the indirect effect’s 95%CI including zero (\( b = 0.06, SE = 0.08, p > .05 \), BootLLCI = -.0902 and BootULCI = .2173, indicating a lack of support for the mediating role of task mastery between institutionalized socialization tactics and engagement.

The third mediation analysis examined autonomy as the mediator between institutionalized socialization tactics and engagement. Results indicated that socialization tactics was a significant predictor of autonomy (\( b = 0.61, SE = 0.13, p < .001 \)). When institutionalized socialization tactics and autonomy were entered into the model with engagement as the outcome, institutionalized socialization was a significant predictor of engagement (\( b = 0.69, SE = 0.12, p < .001 \), and autonomy was as well (\( b = 0.32, SE = 0.07, p < .001 \)). In addition, the indirect effect between institutionalized socialization tactics and engagement through autonomy was significant with the indirect effect’s 95%CI not including zero, (\( b = 0.20, \text{BootSE} = 0.0724, \text{BootLLCI} = .0739 \) and BootULCI = .3557, \( p < .01 \)), indicating support for the mediating role of autonomy.

The fourth mediation analysis examined role clarity as the mediator between institutionalized socialization and engagement. Results indicated that socialization tactics was a significant predictor of role clarity (\( b = 0.79, SE = 0.08, p < .001 \)). When institutionalized socialization tactics and role clarity were entered into the model with
engagement as the outcome, institutionalized socialization was a significant predictor of engagement \((b = 0.61, \ SE = 0.15, \ p < .001)\), and role clarity was as well \((b = 0.35, \ SE = 0.12, \ p < .01)\). The indirect effect between institutionalized socialization tactics and engagement through role clarity was also significant with the indirect effect’s 95% CI not including zero, \((b = 0.28, \ BootSE = 0.1337, \ BootLLCI = .0168 \text{ and } \ BootULCI = .5380, \ p < .01)\), indicating partial support for the mediating role of role clarity.

The fifth meditation examined satisfaction with socialization as the mediator between institutionalized socialization tactics and engagement. Results indicated that institutionalized socialization tactics was a significant predictor of satisfaction with socialization \((b = 1.10, \ SE = 0.09, \ p < .001)\). When satisfaction with socialization and institutionalized socialization were entered into the model with engagement as the outcome, institutionalized socialization tactics was a significant predictor of engagement \((b = 0.34, \ SE = 0.16, \ p < .05)\), and satisfaction with socialization was as well \((b = 0.50, \ SE = 0.10, \ p < .01)\). The indirect effect between institutionalized socialization and engagement through satisfaction with socialization was also significant with the indirect effect’s 95% CI not including zero, \((b = 0.55, \ BootSE = .1151, \ BootLLCI = .3259 \text{ and } \ BootULCI = 0.7794, \ p < .01)\), indicating support for the partial mediating role of satisfaction with socialization between institutionalized socialization tactics and engagement.

Finally, a dominance analysis was conducted to examine the most dominant predictor of engagement including institutionalized socialization and STARS. A dominance analysis utilizes the relative importance of predictors in multiple regression (Azen et al., 2003). This procedure is based on an examination of the \(R^2\) values for all
possible subset models utilizing bootstrap comparisons and helps identify the most important predictors with a given criterion. The results of the dominance analyses indicated an overall fit of (.49) with satisfaction with socialization as the most dominant predictor of engagement (.13), social integration as the second most dominant predictor (.13), and autonomy as a relatively close third (.09).

Table 7.

**Dominance Analysis of Engagement with Institutionalized Socialization and STARS as Predictors**

<table>
<thead>
<tr>
<th></th>
<th>General Dominance</th>
<th>Standardized Rank Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with socialization</td>
<td>.133</td>
<td>.269</td>
</tr>
<tr>
<td>Social integration</td>
<td>.125</td>
<td>.254</td>
</tr>
<tr>
<td>Autonomy</td>
<td>.093</td>
<td>.188</td>
</tr>
<tr>
<td>Institutionalized Socialization</td>
<td>.066</td>
<td>.133</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>.057</td>
<td>.057</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>.020</td>
<td>.041</td>
</tr>
</tbody>
</table>

*Indirect Effects on Engagement Through Job Embeddedness*

To test Hypothesis 11, job embeddedness mediates the relationship between institutionalized socialization tactics and employee engagement, a mediation analysis was conducted using PROCESS MACRO. The approach developed by Hayes (2013) was
used to examine the indirect and direct relationship between socialization tactics and employee engagement through the mediator of job embeddedness. The results indicated that institutionalized socialization was a significant predictor of job embeddedness ($b = 0.71$, SE $= 0.14$, $p < .001$). When job embeddedness was entered into the model, both predicted significant variance in engagement scores; institutionalized socialization ($b = 0.50$, SE $= 0.1$, $p < .001$) and job embeddedness ($b = 0.54$, SE $= 0.05$, $p < .001$), respectively. The indirect relationship between socialization tactics and engagement through the mediator of job embeddedness indicated significance with the indirect effect’s 95%CI not including zero ($b = 0.39$, BootSE $= 0.1040$, BootLLCI $= 0.2026$, and BootULCI $= 0.6133$, $p < .01$). These results provide support for hypotheses 11, suggesting that job embeddedness mediates the relationship between socialization tactics and engagement.

To test Hypothesis 12, “Job embeddedness mediates the relationship between socialization outcomes (social integration, role clarity, task mastery, and autonomy) and employee engagement,” five separate mediation analyses were conducted using the approach developed by Hayes (2013). The first mediation analysis examined job embeddedness as the mediator between social integration and engagement. Results indicated that social integration was a significant predictor of job embeddedness ($b = 0.75$, SE $= 0.10$, $p < .001$). When social integration and job embeddedness were entered into the model with engagement as the outcome, social integration was a significant predictor of engagement ($b = 0.43$, SE $= 0.09$, $p < .001$); job embeddedness was also a significant predictor of engagement ($b = 0.50$, SE $= 0.06$, $p < .001$). Results indicated that the indirect effect between social integration and engagement through social integration
was significant with the indirect effect’s 95\%CI not including zero \((b = 0.38, \text{BootSE} = 0.0750, \text{BootLLCI} = 0.2444 \text{ and BootULCI} = 0.6040, p < .01)\), indicating support for the mediating role of job embeddedness between social integration and engagement.

The second meditation analysis examined job embeddedness as the mediator between task mastery and engagement. Results indicated that task mastery was not significantly predictive of job embeddedness \((b = .14, \text{SE} = 0.12, p = .28)\). When task mastery and job embeddedness were entered into the model with engagement as the outcome, task mastery was a significant predictor of engagement \((b = 0.33, \text{SE} = 0.08, p < .001)\), and job embeddedness was as well \((b = 0.62, \text{SE} = 0.05, p < .001)\). The indirect effect between task mastery and engagement through job embeddedness was not significant with the indirect effect’s 95\%CI including zero, \((b = 0.08, \text{BootSE} = 0.0769, \text{BootLLCI} = -.0723 \text{ and BootULCI} = .2278, p < .01)\), indicating a lack of support for the mediating role of job embeddedness.

The third meditation analysis examined job embeddedness as the mediator between autonomy and engagement. Results indicated that autonomy was a significant predictor of job embeddedness \((b = 0.54, \text{SE} = 0.08, p < .001)\). When autonomy and job embeddedness were entered into the model with engagement as the outcome, autonomy was a significant predictor of engagement \((b = 0.16, \text{SE} = 0.07, p < .05)\), and job embeddedness was as well \((b = 0.58, \text{SE} = 0.06, p < .001)\). The indirect effect between autonomy and engagement through job embeddedness was also significant with the indirect effect’s 95\%CI not including zero, \((b = 0.31, \text{BootSE} = 0.0605, \text{BootLLCI} = .2009 \text{ and BootULCI} = .4333, p < .01)\), indicating support for the mediating role of job embeddedness.
The fourth meditation analysis examined job embeddedness as the mediator between role clarity and engagement. Results indicated that role clarity was a significant predictor of job embeddedness \((b = 0.45, \text{SE} = 0.11, p < .001)\). When role clarity and job embeddedness were entered into the model with engagement as the outcome, role clarity was a significant predictor of engagement \((b = .41, \text{SE} = 0.08, p < .001)\), and job embeddedness was as well \((b = .57, \text{SE} = 0.05, p < .001)\). The indirect effect between role clarity and engagement through job embeddedness was also significant with the indirect effect’s 95%CI not including zero, \((b = 0.27, \text{BootSE} = 0.0753, \text{BootLLCI} = .1087 \text{ and BootULCI} = .4039, p < .01)\), indicating support for the mediating role of job embeddedness.

The fifth meditation examined job embeddedness as the mediator between satisfaction with socialization and engagement. Results indicated that satisfaction with socialization was a significant predictor of job embeddedness \((b = 0.49, \text{SE} = 0.09, p < .001)\). When satisfaction with socialization and job embeddedness were entered into the model with engagement as the outcome, role clarity was a significant predictor of engagement \((b = .40, \text{SE} = 0.06, p < .001)\), and job embeddedness was as well \((b = .51, \text{SE} = 0.05, p < .001)\). In addition, the indirect effect between satisfaction with socialization and engagement through job embeddedness was also significant with the indirect effect’s 95%CI not including zero, \((b = 0.25, \text{BootSE} = 0.0608, \text{BootLLCI} = .2765 \text{ and BootULCI} = .5239, p < .01)\), indicating support for the mediating role of job embeddedness. Overall, the results indicate partial support for Hypothesis 12.

**Association Between Percentage of Onboarding Online and Socialization**

Research question 3, “Is there an association between online onboarding and
socialization approaches?” was tested using correlational analyses. More specifically, individual correlational analyses were conducted examining the percentage of online onboarding with institutionalized socialization, social, content, context, and each of the six socialization tactics, respectively. Overall, no associations were found between online onboarding and with institutionalized, social, content, and context tactics; however, there was a significant association between online onboarding and formal socialization tactics \((r = .18, p<.05)\) (see Table 8 below). Overall, the results provide little support for an association.

Table 8.

*Means, standard deviations, and correlations for Percentage of Onboarding Online and Socialization Tactics*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Onboarding Online</td>
<td>55.70</td>
<td>37.76</td>
<td></td>
</tr>
<tr>
<td>Formal/Informal</td>
<td>3.44</td>
<td>0.63</td>
<td>.18*</td>
</tr>
<tr>
<td>Serial/Disjunctive</td>
<td>3.40</td>
<td>0.90</td>
<td>-.08</td>
</tr>
<tr>
<td>Sequential/Random</td>
<td>3.53</td>
<td>0.90</td>
<td>-.03</td>
</tr>
<tr>
<td>Investiture/Divestiture</td>
<td>3.68</td>
<td>0.79</td>
<td>.02</td>
</tr>
</tbody>
</table>
Research question 4, “Does delivery format of onboarding (in-person, hybrid, virtual) moderate the strength of relationship between socialization approaches and any of the socialization outcomes (STARS, job embeddedness, and engagement)?” was examined by conducting multiple moderation analyses. The results of the multiple moderation analyses indicated no significant moderating effects of the interaction between institutionalized socialization and STARS, job embeddedness, or engagement. Overall, percentage of onboarding online had no significant associations with any of the socialization outcomes examined (see Table 9 below); however, through additional correlation analyses a significant inverse relationship between percentage of onboarding online and network size operationalized as the number of names participants provided (see Table 10 below).

Table 9.

Means, standard deviations, and correlations for Percentage of Onboarding Online with STARS and Embeddedness

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Onboarding Online</td>
<td>55.70</td>
<td>37.76</td>
<td></td>
</tr>
<tr>
<td>Social Integration</td>
<td>4.13</td>
<td>0.75</td>
<td>-.01</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>4.00</td>
<td>0.75</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note. N =162. M and SD are used to represent mean and standard deviation, respectively. * indicates p < .05. ** indicates p < .01.
<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>3.41</td>
<td>1.03</td>
<td>-0.01</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>4.17</td>
<td>0.75</td>
<td>0.02</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>3.76</td>
<td>0.95</td>
<td>-0.07</td>
</tr>
<tr>
<td>Job Embeddedness (global)</td>
<td>3.12</td>
<td>1.13</td>
<td>0.02</td>
</tr>
<tr>
<td>On-the-job (Fit)</td>
<td>3.97</td>
<td>0.94</td>
<td>0.03</td>
</tr>
<tr>
<td>Off-the-job (Fit)</td>
<td>3.77</td>
<td>1.03</td>
<td>0.07</td>
</tr>
<tr>
<td>On-the-job (Sacrifice)</td>
<td>3.57</td>
<td>0.88</td>
<td>0.05</td>
</tr>
<tr>
<td>Off-the-job (Sacrifice)</td>
<td>3.65</td>
<td>0.96</td>
<td>0.06</td>
</tr>
<tr>
<td>Engagement</td>
<td>3.65</td>
<td>1.06</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. N = 162. M and SD are used to represent mean and standard deviation, respectively. * indicates p < .05. ** indicates p < .01.

Table 10.

Means, standard deviations, and correlations for Percentage of Onboarding Online with Network Metrics

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Onboarding Online</td>
<td>55.70</td>
<td>37.76</td>
<td></td>
</tr>
<tr>
<td>Ego Size (total)</td>
<td>12.99</td>
<td>18.95</td>
<td>0.01</td>
</tr>
<tr>
<td>Ego Size (Connections provided)</td>
<td>6.64</td>
<td>3.03</td>
<td>-0.17*</td>
</tr>
</tbody>
</table>
Impact of Ego Network on STARS, Job Embeddedness, and Engagement

Hypothesis 13, “newcomer network size will be positively related to STARS, job embeddedness, and engagement,” was examined by conducting Pearson R correlation analyses between both operations of network size and the variables of interest (see Table 11 for correlations). As mentioned previously newcomer network size was examined both as total network size (i.e., 100), as well as by the amount individuals (out of ten) they identified and used to answer the rest of the network-related questions. When examining the relationship between the names provided and the variables of interest, significant positive relationships were observed for job embeddedness ($r = .26, < .01$) and engagement ($r = .25, p < .01$), and approaching significance with autonomy ($r = .16, p = .05$); social integration ($r = .14, p = .08$), task mastery ($r = .01, p = .88$), role clarity ($r = .13, p = .11$), and satisfaction with socialization ($r = .12, p = .14$) were not significantly related to amount of names provided. In addition, none of the relationships between total network size and the variables of interest were significant; job embeddedness ($r = .15, p$...
= .06) and engagement \((r = .09, p = .25)\); social integration \((r = .01, p = .94)\), task mastery 
\((r = -.06, p = .47)\), autonomy \((r = .09, p = .25)\), role clarity \((r = .05, p = .53)\), and 
satisfaction with socialization \((r = -.06, p = .48)\). In summation, these results indicate only partial support for Hypothesis 12. Specifically, only partial support for the significant and positive association between network size and job embeddedness and engagement, with network size referring to the number of individuals they identified for the remaining network questions.

Hypothesis 14, “newcomer network strength (frequency and quality) will be positively related to STARS, job embeddedness and engagement,” was examined by conducting multiple separate Pearson R correlation analyses. As mentioned previously, newcomer network strength was examined by both the frequency and quality of communication with members of participant networks. When examining the relationship between frequency and the variables of interests, significant positive relationships were observed for social integration \((r = .30, p < .01)\), and task mastery \((r = .22, p < .01)\); autonomy \((r = .00, p = .96)\), role clarity \((r = .16, p = .06)\), satisfaction with socialization \((r = .11, p = .17)\), job embeddedness \((r = .05, p = .50)\), and engagement \((r = .15, p = .06)\) were not significantly related to frequency. When examining the relationship between quality and the variables of interests, significant positive relationships were observed for social integration \((r = .70, p < .01)\), task mastery \((r = .52, p < .01)\), autonomy \((r = .28, p < .01)\), role clarity \((r = .45, p < .01)\), satisfaction with socialization \((r = .52, p < .01)\), job embeddedness \((r = .37, p < .01)\) and engagement \((r = .45, p < .01)\); indicating support for Hypothesis 14 (see Table 11 below). Taken together these results indicate partial support for the proposed hypothesis, with more significant and positive correlations between
network strength (quality) and the proposed variables of interest.

Table 11.

Means, Standard Deviations and Correlations Between Ego Network Qualities, Socialization Tactics and STARS

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego Size (Connections provided)</td>
<td>6.64</td>
<td>3.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Size (total)</td>
<td>12.99</td>
<td>18.95</td>
<td>.47**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Strength (frequency)</td>
<td>6.70</td>
<td>1.25</td>
<td>.05</td>
<td>-.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Strength (quality)</td>
<td>4.27</td>
<td>0.64</td>
<td>.04</td>
<td>-.07</td>
<td>.45**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ego Status</td>
<td>2.30</td>
<td>2.09</td>
<td>.34**</td>
<td>.25**</td>
<td>-.17*</td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td>Institutionalized Tactics</td>
<td>3.45</td>
<td>0.60</td>
<td>.11</td>
<td>-.07</td>
<td>.10</td>
<td>.45**</td>
<td>-.06</td>
</tr>
<tr>
<td>Social Integration</td>
<td>4.13</td>
<td>0.75</td>
<td>.14</td>
<td>.01</td>
<td>.30**</td>
<td>.70**</td>
<td>.04</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>4.00</td>
<td>0.75</td>
<td>.01</td>
<td>-.07</td>
<td>.22**</td>
<td>.52**</td>
<td>-.11</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.41</td>
<td>1.03</td>
<td>.16*</td>
<td>.09</td>
<td>-.00</td>
<td>.28**</td>
<td>.10</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>4.17</td>
<td>0.75</td>
<td>.13</td>
<td>.05</td>
<td>.15</td>
<td>.45**</td>
<td>-.01</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>3.76</td>
<td>0.95</td>
<td>.12</td>
<td>-.06</td>
<td>.11</td>
<td>.52**</td>
<td>-.04</td>
</tr>
<tr>
<td>Job Embeddedness</td>
<td>3.12</td>
<td>1.13</td>
<td>.26**</td>
<td>.15</td>
<td>.05</td>
<td>.37**</td>
<td>.16*</td>
</tr>
</tbody>
</table>

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Hypothesis 15, “newcomer network status will be positively related to STARS, job embeddedness and engagement, was examined by conducting multiple separate Pearson R correlation analyses. As mentioned previously, newcomer network strength was examined by considering the positions (formal and informal) that members participants identified held at the time of taking the survey, with the variables of interest. When examining the relationship between status and the variables of interests, none of the relationships indicated significant relationships, social integration \((r = .04, p = .57)\), and task mastery \((r = -.11, p = .07)\), autonomy \((r = .01, p = .23)\), role clarity \((r = -.01, p = .96)\), satisfaction with socialization \((r = -.04, p = .62)\), and engagement \((r = .15, p = .06)\). Only job embeddedness \((r = .16, p = .05)\) approached a significance. This indicated no support for Hypothesis 15.

Impact of Social, Human, and Cultural Capital on STARS, Job Embeddedness, and Engagement

Hypotheses 16 - 18 were proposed to examine the impact of having members in one’s network that provide them with social, human, and cultural capital has on STARS as well as job embeddedness and engagement. In order to test these hypotheses multiple separate Pearson R correlation analyses were conducted. Results of the correlation analyses indicted significant and positive associations between social capital and social integration \((r = .38, p < .01)\), autonomy \((r = .49, p < .01)\), role clarity \((r = .33, p < .01)\),
satisfaction with socialization ($r = .31, p < .62$), job embeddedness ($r = .46, p < .01$), and engagement ($r = .56, p < .01$); task mastery was not ($r = .12, p = .12$). These findings indicated partial support for Hypothesis 16. Results of the correlation analyses indicted significant and positive associations between human capital and social integration ($r = .35, p < .01$), autonomy ($r = .32, p < .01$), role clarity ($r = .25, p < .01$), satisfaction with socialization ($r = .30, p < .01$), job embeddedness ($r = .36, p < .01$), and engagement ($r = .52, p < .01$); task mastery was not ($r = .14, p = .09$). These findings indicated partial support for Hypothesis 17. Results of the correlation analyses indicted significant and positive associations between cultural capital and social integration ($r = .39, p < .01$), task mastery ($r = .26, p < .01$), autonomy ($r = .28, p < .01$), role clarity ($r = .33, p < .01$), satisfaction with socialization ($r = .37, p < .01$), job embeddedness ($r = .33, p < .01$), and engagement ($r = .47, p < .01$). These findings indicated full support for Hypothesis 18 (see Table 12 below).

Table 12.

**Means, Standard Deviations and Correlations Between Ego Network Capital, Socialization Tactics and STARS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Capital</td>
<td>3.31</td>
<td>1.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Capital</td>
<td>3.54</td>
<td>0.95</td>
<td>.59**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Capital</td>
<td>3.90</td>
<td>0.87</td>
<td>.48**</td>
<td>.66**</td>
<td></td>
</tr>
<tr>
<td>Institutionalized Tactics</td>
<td>3.45</td>
<td>0.60</td>
<td>.28**</td>
<td>.18*</td>
<td>.37**</td>
</tr>
<tr>
<td>Social Integration</td>
<td>4.13</td>
<td>0.75</td>
<td>.38**</td>
<td>.35**</td>
<td>.39**</td>
</tr>
<tr>
<td>Task Mastery</td>
<td>4.00</td>
<td>0.75</td>
<td>.12</td>
<td>.14</td>
<td>.26**</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
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<td>r</td>
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<tr>
<td>--------------------</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.41</td>
<td>1.03</td>
<td>.49**</td>
<td>.32**</td>
<td>.28**</td>
</tr>
<tr>
<td>Role Clarity</td>
<td>4.17</td>
<td>0.75</td>
<td>.33**</td>
<td>.25**</td>
<td>.33**</td>
</tr>
<tr>
<td>Satisfaction with Socialization</td>
<td>3.76</td>
<td>0.95</td>
<td>.31**</td>
<td>.30**</td>
<td>.37**</td>
</tr>
<tr>
<td>Job Embeddedness  (global)</td>
<td>3.12</td>
<td>1.13</td>
<td>.46**</td>
<td>.36**</td>
<td>.33**</td>
</tr>
<tr>
<td>Engagement</td>
<td>3.65</td>
<td>1.06</td>
<td>.56**</td>
<td>.52**</td>
<td>.47**</td>
</tr>
</tbody>
</table>

*Note. N =162. M and SD are used to represent mean and standard deviation, respectively. * indicates p < .05. ** indicates p < .01.*

**Implications for a Final Model Linking Socialization to Engagement**

The figure below was constructed utilizing the conceptual support and empirical findings from the analyses and investigations of the hypothesized relationships and research questions of interest, as well as additional exploratory regression and dominance analyses. Overall, the figure provides an overview of important factors that influence the relationship between institutionalized socialization and engagement, as well as provides the most important predictors for both engagement and job embeddedness.

Figure 23.

Overview of Hypotheses, Research Questions, and Final Dominance Analyses
Results Summary

The results from Hypotheses 1-5 indicated a positive relationship between institutionalized socialization and STARS. In addition, the correlation analyses revealed a positive association between each individual variable included in STARS. In the model below these relationships are discussed. Next, Hypotheses 6-8 indicated a significant and positive relationship between institutionalized socialization and job embeddedness, a significant relationship between STARS (excluding task mastery) and job embeddedness, the mediating roles of social integration, satisfaction with socialization, and autonomy between institutionalized socialization and job embeddedness.

In order to understand the impact that STARS have on job embeddedness a dominance analysis was conducted to examine which predictors account for the most variance in job embeddedness scores; due to the lack of significance between role clarity and job embeddedness, role clarity was not included. These dominance analyses are presented in the discussion to help readers interpret the relative importance of these predictors. The results of the dominance analysis indicated an overall fit of the model of
$R^2 = .42$), with social integration (.16) as the most important predictor of job embeddedness, followed by autonomy (.15), and satisfaction with socialization (.09). See Table 13.

Table 13.

Dominance Analysis using Job Embeddedness as the Criterion and Social Integration, Autonomy, Satisfaction with Socialization and Task Mastery as Predictors

<table>
<thead>
<tr>
<th></th>
<th>General Dominance</th>
<th>Standardized</th>
<th>Rank Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.156</td>
<td>0.269</td>
<td>1</td>
</tr>
<tr>
<td>Social integration</td>
<td>0.148</td>
<td>0.254</td>
<td>2</td>
</tr>
<tr>
<td>Autonomy</td>
<td>0.148</td>
<td>0.254</td>
<td>2</td>
</tr>
<tr>
<td>Satisfaction with</td>
<td>0.086</td>
<td>0.188</td>
<td>3</td>
</tr>
<tr>
<td>socialization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task Mastery</td>
<td>0.026</td>
<td>0.041</td>
<td>4</td>
</tr>
</tbody>
</table>

The results of testing Hypotheses 9-10 and Research Question 2 indicated support for the significant and positive relationships between institutionalized socialization and engagement, the significant and positive relationships between STARS and engagement, the significant and unique variance explained in engagement scores with social integration, autonomy, and satisfaction with socialization as predictors. The results of the mediation analyses also indicated the mediating role of social integration, autonomy, and satisfaction with socialization between institutionalized socialization and engagement, respectively. In addition, the results of the dominance analysis revealed
satisfaction with socialization as the most dominant predictor followed by social integration and autonomy. The results of testing Hypotheses 11-12 indicated job embeddedness as a mediator of the relationship between institutionalized socialization and engagement, as well as of the relationships between social integration, autonomy, role clarity, and satisfaction with engagement. In addition, a dominance analysis was conducted examining institutionalized socialization, STARS, and job embeddedness as predictors of engagement. The results indicated job embeddedness as the most dominant predictor followed by satisfaction with socialization and social integration. In order to understand the impact that STARS and job embeddedness have on engagement a dominance analysis was also conducted to examine which predictors account for the most variance in job embeddedness scores. The results of the dominance analysis indicated an overall fit of the model, $R^2 = .62$, with job embeddedness (.25) as the most dominant predictor of job embeddedness, followed by satisfaction with socialization (.12), and social integration (.10). Table 14 summarizes these results for readers.

Table 14.

*Dominance Analysis using Engagement as the Criterion and Job Embeddedness and STARS as Predictors*

<table>
<thead>
<tr>
<th></th>
<th>General Dominance</th>
<th>Standardized</th>
<th>Rank Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Job Embeddedness</td>
<td>.246</td>
<td>.399</td>
<td>1</td>
</tr>
<tr>
<td>Satisfaction with</td>
<td>.124</td>
<td>.199</td>
<td>2</td>
</tr>
<tr>
<td>socialization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 107
The results of examining Research Questions 3 and 4 indicated a significant and positive association between online onboarding and the formal approach, but no other significant associations or moderating effects among any of the variables related to institutionalized socialization. Because of this only the relationship between formal socialization tactics and percentage of onboarding online is depicted in the figure below.

The results of testing Hypotheses 13-15 indicated a significant positive relationship between network size (when operationalized as the names provided) with job and embeddedness and engagement, network strength (when operationalized as frequency) with social integration and task mastery, network strength (when operationalized as quality) with STARS, job embeddedness and engagement, and network status with job embeddedness. In addition, the results of testing Hypotheses 16-18 indicated significant positive relationships between cultural capital and STARS, job embeddedness and engagement; significant positive relationships between social capital STARS (excluding task mastery), job embeddedness, and engagement, and significant positive relationships between human capital STARS (excluding task mastery), job embeddedness, and engagement.

From the observed relationships two final separate dominance analyses were conducted. The first examined the dominance among the predictors of job embeddedness
including social integration, autonomy, satisfaction with socialization, task mastery, network size (when operationalized as the names provided), network strength (when operationalized as quality), network status, as well as each component of network capital. The results indicated an overall fit of $R^2 = .47$, with social integration as the most important predictor (.10), followed by autonomy (.09), social capital (.07), and satisfaction with socialization (.05).

Table 15.

_Dominance Analysis using Job Embeddedness as the Criterion and Network-Related Components and STARS as Predictors_

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<th>General Dominance</th>
<th>Standardized Rank Importance</th>
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The second dominance analysis examined which predictors of engagement are most important in explaining variance in engagement scores. The predictors included, job embeddedness, satisfaction with socialization, autonomy, social integration, network size (when operationalized as the names provided), network strength (when operationalized as quality), as well as each component of network capital. The results indicated an overall fit
of $R^2$ (.68) with job embeddedness as the most important predictor (.18), followed by satisfaction with socialization (.11), social capital (.08), and social integration (.08).

Table 15.

_Dominance Analysis using Engagement as the Criterion and Job Embeddedness, Network-Related Components and STARS as Predictors_

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<th>General Dominance</th>
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The results of this study provide a range of interesting findings. In general, the results of this study indicate support for some of the proposed relationships and research questions, as well as indicate some support for a comprehensive model connecting socialization tactics to employee engagement. The section below provides an in-depth discussion about the findings from examining and exploring the hypotheses and research question. At the end of the discussion of the proposed relationships, additional information is provided regarding the implications of a comprehensive model linking institutionalized socialization to engagement. To this end, additional exploratory findings are discussed.
Chapter 5

Discussion

General Discussion

This study aimed to examine the impact that socialization tactics have on the experience of organizational newcomers. More specifically, this study examined the models used to describe socialization, the impact socialization approaches have on newcomer’s perceptions of their role, the impact these perceptions have on employees’ job attitudes including job embeddedness and engagement, the impact that characteristics of employee networks have on these same outcomes and attitudes, as well as the importance of the medium used to facilitate the onboarding and or socialization process. Overall, the findings from this study demonstrated further support for the use of institutionalized socialization tactics as opposed to individualized socialization tactics (Jones et al., 1986; Perrot et al., 2012; Van Maanen & Schien, 1979). The findings indicated significant direct and indirect effects of socialization on STARS, embeddedness, and engagement. From the correlation, regression, mediation, and dominance analyses social integration, autonomy, and satisfaction with socialization were identified as important variables related to socialization, in accounting for unique variance in employee job embeddedness and engagement, as well as linking socialization to engagement. Role clarity and task mastery have interesting relationships with job embeddedness and engagement but appear to play less of a role in comparison to the other variables included in STARS. With regards to online socialization, proportion of onboarding online was not related to the study variables of interest, however, this finding merits further examination and is explained further within the limitations and future
directions. Finally, network strength and network capital (social, human, cultural) are significant and important factors in understanding outcomes of socialization. The section below discusses the findings from the examinations and explorations of the specific hypotheses and research questions.

Discussion of Hypotheses and Research Questions

The first research question was examined to investigate the model of socialization with the greatest fit. The six, three, and one-factor models of Van Maanen and Schien (1979) socialization approaches. It is important to note that the results of the multiple CFA comparisons indicated poor model fit for all models (one, three, and six-factor). To this end, the reliability analyses indicated poor reliability for the formal-informal subscale, but previous research has indicated acceptable reliability of the subscale (Jones et al., 1986). Still, the results of the bifactor model examination support that the three and single-factor models both adequately provide statistical power for use in examination. Possible reasons for these results are further discussed in the limitations and future directions.

Hypotheses 1, 2, and 3 examined the relationships between socialization tactics and social integration, task mastery, autonomy, and role clarity, respectively. Overall, the results indicated strong support for this relationship. Institutionalized socialization tactics were found to be significant predictors of each outcome variable examined (social integration, task mastery, autonomy, and role clarity), social tactics were found to be significantly related to and predictive of each of the outcomes, excluding autonomy, and content tactics were also found to be significantly related to and predictive of each of the outcomes. These findings support previous empirical implications about the relationships
between socialization and its impact on newcomer experience (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Saks et al., 2007; Van Maanen & Schein, 1979). In the interest of socialization research, these findings suggest that institutionalized socialization tactics (collective, formal, serial, investiture, fixed) predict positive and significant variance in how well employees feel they have interpersonally integrated into the organization (social integration), how well they have mastered the tasks of their position (task mastery), the extent to which they have control over their work (autonomy), and their overall clarity concerning the expectations of their role (role clarity).

When employees are onboarded effectively, they are more likely to feel integrated into the social fabric of their work life and socially equipped to handle the challenges of the role (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Saks et al., 2007; Van Maanen & Schien, 1979). In addition, effective socialization clarifies the autonomy or control employees have in making their own job-related decisions. Effective socialization also contributes significantly to making employees feel clear on the expectation and tasks of their role (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Saks et al., 2007; Van Maanen & Schien, 1979). Taken together these findings support that the experience of socialization has a significant impact on how employees understand and perceive their work and their role. Employees who are provided encouraging direction perceive their job more positively and more clearly.

Hypotheses 4 examined the extent to which institutionalized socialization tactics predicts significant variance employee’s satisfaction with socialization. Results indicated
full support for Hypothesis 4, with institutionalized socialization tactic predicting significant variance in newcomer satisfaction with socialization. As potentially the first major job attitude formed as a newcomer, the satisfaction employees have with their socialization is an important and largely unstudied variable in examining links between socialization and its outcomes. In a way an employee’s satisfaction with their socialization process is a powerful contributor to the lens that newcomers begin their role with and compare to future organizational experiences. Furthermore, these results support previous assertions from the literature concerning the important role onboarding plays in developing employee perceptions and feelings about their work and their organization (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Saks et al., 2007; Van Maanen & Schien, 1979).

Hypothesis 5 examined the relationship between satisfaction with socialization and each outcome (social integration, task mastery, autonomy, role clarity) respectively. Overall, the results indicated full support for Hypothesis 5, with each of the socialization outcomes being positively and significantly related to satisfaction with socialization. These findings demonstrate empirical support for the conceptual links proposed with each socialization outcome. Moreover, these results support that employees satisfied with their socialization process are also significantly likely to report positive appraisals of how they feel they have integrated into the organization, how well they have mastered the tasks of their position, the extent to which they have control over their work, and their overall clarity concerning the expectations of their role. The interpretation of these findings, and in consideration of other research conducted in this domain of research, also suggests that organizations who ask employees about their onboarding and socialization
experiences are likely to gain additional insight on how the employee feels about those they work with and the expectations of their position (Allen et al., 2013; Boswell et al., 2005; Fang et al., 2011; Jones, 1986; Morrison, 2002; Peltokorpi, 2022; Saks et al., 2007; Van Maanen & Schien, 1979).

Hypothesis 6 examined the relationship between institutionalized socialization tactics and job embeddedness. Overall, the findings demonstrated full support for Hypothesis 6 with institutionalized socialization tactics being positively and significantly predictive of job embeddedness scores. This finding provides greater support for the relationship between institutionalized socialization and job embeddedness, and it also contributes to research within the socialization and job embeddedness literature domains. Coupled with previous literature, this finding suggests that through effective and thoughtful onboarding, employees are more likely to feel that they fit within the organization (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Jones, 1986; Peltokorpi, 2022, Van Maanen & Schein, 1979). In addition, employees who are onboarded through institutionalized tactics are more likely to view their job and the environment in which they work, as valuable sacrifices. The significant relationship observed supports the idea that institutionalized socialization contributes to the development of employees’ awareness and understanding of their role, the work environment, as well as the value they place on their job (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Jones, 1986; Peltokorpi, 2022, Van Maanen & Schein, 1979).

Hypothesis 7 examined the relationship between STARS (social integration, task mastery, autonomy, role clarity, and satisfaction with socialization) and job embeddedness, respectively. The results indicated partial support for the proposed
relationships. More specifically, job embeddedness scores were significantly related to each of the STARS outcomes excluding task mastery. Moreover, the results of the multiple regression analysis indicated that only role clarity did not account for additional explained variance in job embeddedness scores. Interestingly, task mastery accounted for variance in job embeddedness scores with a negative unstandardized beta value. These findings suggest that those who are more socially integrated into their organization, perceive that their role offers greater autonomy, report high role clarity, and are more satisfied with their socialization process, will also report higher levels of job embeddedness. Taken with previous research that suggest that the link between socialization and job embeddedness (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Peltokorpi, 2022), these results indicate initial support for the examination imply that the link between socialization and job embeddedness, is influenced directly and indirectly by STARS.

To this end, these results suggest that social integration, autonomy, task mastery, and satisfaction with socialization are antecedents of employee job embeddedness. Conversely, employees with appraisals of their own task mastery do not covary with their appraisals of job embeddedness, and role clarity does not predict unique variance in job embeddedness beyond the other variables. Furthermore, when each of the variables, STARS, are considered, only social integration, autonomy, and employee satisfaction with socialization predict unique, positive, and significant variance in job embeddedness scores. These findings contribute to job embeddedness literature by providing additional support for understudied predictors and influencers of job embeddedness. Additionally, research within the domain of job embeddedness supports that socialization impacts
employees’ perceptions of job embeddedness, which in turn influences other organizational and employee related outcomes (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Peltokorpi, 2022). Taken with the findings of Hypothesis 6, these results suggest a path between socialization and job embeddedness through the socialization outcomes STARS.

Hypothesis 8 examined the relationship between institutionalized socialization tactics and job embeddedness by considering the mediating impact STARS play in their connection. Results of the multiple regression analysis indicated that social integration, task mastery, and autonomy predicted significant variance in job embeddedness scores; institutionalized socialization tactics, role clarity, and satisfaction with socialization were not. These findings are interesting in that the observed impact institutionalized tactics have in predicting significant variance in job embeddedness, found through examination of Hypothesis 6 and the observed impact role clarity and satisfaction with socialization, were no longer observed. An interpretation of these findings is that some of the socialization outcomes included in STARS help to explain the relationship between socialization and job embeddedness.

The findings of the mediation analyses indicated that social integration and satisfaction with socialization mediated the relationship between institutionalized socialization tactics and job embeddedness; autonomy partially mediated the relationship. The indirect effects for both role clarity and task mastery were not significant. In comparison to other studies in the domain of job embeddedness that consider the link and mediating role job embeddedness has with socialization and such outcomes as employee affective commitment (Allen et al., 2013; Peltokorpi, 2022) and turnover intentions
(Ahmad et al., 2019), these findings suggest that the relationship between socialization and job embeddedness may also be influenced by more proximal outcomes of socialization, namely social integration, autonomy, and satisfaction with socialization. Taken with previous empirical support interested in the importance of new employees having strong interpersonal ties with other organizational members (Ahmad et al., 2019; Allen, 2013; Crossley et al., 2007; Jiang, 2012; Levinson, 1965; Masterson et al., 2000; Mitchell et al., 2001), as well as having positive perceptions about the socialization process (Chao et al., 1994; Earnest et al., 2011; Gruman et al., 2006; Jones, 1986; Van Maanen & Schein, 1979); these results suggest that institutionalized socialization tactics lead to more positive appraisals of the socialization process and prepare employees to be socially integrated, which indirectly influences employees’ appraisals of job embeddedness. In addition, employees who are socialized through institutionalized tactics are likely to feel empowered in their knowledge of their role, which in turn strengthens their sense of autonomy (Allen et al., 2013; Boswell et al., 2005). From there, employees’ sense of autonomy influences their feelings of job embeddedness.

In addition, the results of the job embeddedness dominance analysis, which included institutionalized socialization tactics and STARS, indicated that social integration, autonomy, and satisfaction with socialization as the most dominant among the predictors. Taken together, these results suggest that the relationship between socialization and job embeddedness is linked by and can be largely explained by employees’ appraisals of social integration, autonomy, and satisfaction with socialization. Moreover, the knowledge and relationships developed during the socialization process impact employees’ perceptions of their ability and interpersonal standing, which in turn

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increases their feelings of job embeddedness (Crossley et al., 2007; Harris et al., 2011; Jiang, 2012; Lee et al., 2004; Mitchell et al., 2001). Additionally, newcomer’s affective appraisal of the socialization process also influences and helps to explain the relationship between institutionalized socialization and job embeddedness.

An interpretation from the findings is that employees onboarded through institutionalized socialization tactics feel more socially integrated, autonomous, and, in general, are more satisfied in their role. Employees who feel and report high levels of social integration and autonomy also feel more embedded within their job. Employees socialized through institutionalized tactics may feel more knowledgeable, empowered, and better equipped in their role which results in employees feeling socially integrated and more autonomous. Because these employees feel more socially integrated, their feelings towards their interpersonal position enhance their feelings of fitting within their roles and their feelings of being linked with their coworkers and others. In addition, the quality of the interpersonal relationships suggested by being highly socially integrated, may contribute as a factor for them to stay or constitute a potential sacrifice, should they consider leaving. Employees may view the autonomy of their position as a sacrifice or luxury that they may not have at other organizations or in other jobs. These enhanced feelings of connectedness and job value begin to create a greater tie between the employee and their job. Because job embeddedness is thought to be composed of employee perceptions of fit, links, and sacrifices (both on and off the job), higher levels of social integration contribute to understanding how an employee develops links among the members of the organization, feelings of fit within their work life, and potentially the sacrifice of having to give up the relationships formed. In a similar way higher levels of
autonomy contribute to employees’ feelings of fit and sacrifice (Crossley et al., 2007; Harris et al., 2011; Jiang, 2012; Lee et al., 2004; Mitchell et al., 2001). Employees with greater autonomy may consider the control they have within their position to be of great intrinsic value, and, with regards to job embeddedness, in this way job autonomy represents a sacrifice.

Satisfaction with socialization was also found to fully mediate the relationship between institutionalized socialization tactics and job embeddedness. Unlike social integration and autonomy, however, satisfaction with socialization is unlikely to change over time. Still, the full mediation presents an interesting piece of the greater conceptual puzzle. As mentioned previously, research suggests employees’ job attitudes begin to form early and are less likely to change once formed (Judge et al., 2012), and when an employee feels positively about their job and organization, they are less likely to turnover (Allen & Shanock, 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Saks et al., 2007; Perrot et al., 2012; VanMaanen & Schein, 1979). With the finding of this study in mind, organizations should consider the affective appraisals employees have with the socialization process, if they are interested in understanding how their socialization process relates to the other job attitudes employees’ form.

Hypothesis 9 examined the relationship between institutionalized socialization tactics and engagement. The findings indicated that institutionalized socialization tactics were significantly related to and predictive of engagement scores. Interestingly, these findings provide conflicting findings from Saks et al., (2010), which found no significant impact on the relationship between socialization tactics and engagement. The results of this study suggest that employees onboarded through deliberate and encouraging
direction, largely synonymous with institutionalized socialization tactics (Allen & Shanock, 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Saks et al., 2007; Perrot et al., 2012; VanMaanen & Schein, 1979), may have a clearer understanding of the job and work environment, and thereafter they feel more engaged in their work. Moreover, these results suggest that the conceptual parsimony between theories of engagement and socialization, put forth, has merit. Institutionalized socialization tactics may contribute to employees’ perceptions of meaningfulness within their work, feelings of physical and psychological safety, and effectively provides them the necessary resources to do work; suggested by the Needs-Satisfaction Framework (Kahn, 1990; Sun, 2019). In addition, institutionalized socialization tactics may effectively prepare employees for the demands of the job by providing pertinent information about the job, direct resources, or the means to obtain job-related resources; suggested by the Job-Demands Resource Model (Bakker et al., 2003; Sun et al., 2019). Also, institutionalized socialization may facilitate employee engagement through the reinforcing nature of the institutionalized socialization approach and the sense of responsibility these positive interactions instill in employees through interpersonal interaction; suggested by the Social Exchange Theory (Levinson, 1965; Sun et al., 2019).

Hypothesis 10 examined the relationship between STARS and engagement. The results from the multiple analyses indicated that engagement is positively and significantly related to STARS, respectively. However, the results of the multiple regression analysis indicated that only social integration, autonomy, and satisfaction with socialization predicted significant variance in engagement scores. An interpretation of these findings is that members who feel socially integrated, have high levels autonomy in
their position, and are satisfied with how they were socialized, will report higher engagement scores. Employees who are highly socially integrated may be more engaged because the relationships they form provide a source of motivation (Fang et al., 2011; Hatmaker, 2015; Jones, 1986; Levinson, 1965; Morrison, 2002; Sun et al., 2019; Van Maanen & Schien, 1979). Also, employees who have a great deal of autonomy in their role may view this job characteristic to be pleasing and intrinsically motivating to be engaged in their work (Bakker et al., 2003; Campbell, 1990; Morrison, 2002, Sun et al., 2019). In a similar way employees who enjoy their socialization process may be more engaged due to their positive appraisal of their organizational experience (Fang et al., 2011; Jones, 1986; Kristof-Brown et al., 2005; Van Maanen & Schien, 1979; Weiss et al., 1996). In addition, these findings are particularly interesting in that social integration, autonomy, and satisfaction with socialization were also identified as mediators of the relationship between institutionalized socialization tactics and job embeddedness. These findings further suggest support for the idea that job embeddedness and engagement are influenced and predicated by similar variables.

Research Question 2, examined the possible impact that STARS have in linking institutionalized tactics with engagement. For this, five mediation analyses were conducted, as well as a dominance analysis. The results from the multiple mediation analyses indicated the role of social integration, autonomy, role clarity, and satisfaction as separate and significant partial mediators of the relationship between institutionalized socialization tactics and engagement, Furthermore, satisfaction with socialization, social integration, and autonomy were the most dominant of the predictors from the dominance analysis conducted. Taken together the results from the exploration and examination of
Research Question 2 suggest that satisfaction with socialization, social integration, and autonomy each play a significant role in understanding how institutionalized socialization tactics relate to employee engagement.

Hypothesis 11 examined the mediating role of job embeddedness in the relationship between institutionalized socialization tactics and engagement. The results indicated that job embeddedness partially mediates the relationship between institutionalized socialization tactics and engagement scores, with the direct effect of institutionalized socialization tactics still significantly predicting variance in engagement scores. Although the Hypothesis 11 was partially supported, the findings indicate that other factors may play a role in connecting institutionalized socialization tactics to engagement scores beyond job embeddedness. In consideration of the findings from previous hypotheses and the examination of Research Question 2, two dominance analyses were conducted to examine which of the antecedents of engagement have the strongest influence on engagement scores when institutionalized socialization tactics are included and not included with STARS and job embeddedness. When institutionalized socialization tactics, STARS, and job embeddedness were examined as individual predictors of engagement, the results indicated that job embeddedness was the most dominant predictor followed by satisfaction with socialization. When only STARS, and job embeddedness were examined as individual predictors of engagement, the results indicated that job embeddedness was the most dominant predictor followed by satisfaction with socialization, and social integration. Taken together these findings suggest that job embeddedness is the most dominant predictor of engagement scores and partially mediates the relationship between institutionalized socialization and 

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engagement. As suggested by the previous examination of Research Question 2 and the findings from Hypothesis 10, employees’ satisfaction with socialization and their appraisal of social integration may account for the additional variance in engagement scores not accounted for by job embeddedness. Still, these results indicate further support for the role of job embeddedness as an important factor of employee related outcomes (Ahmad et al., 2019; Crossley et al., 2007; Harris et al., 2011; Jiang, 2012; Karatepe et al., 2016) as well as a mediator between socialization and other employee outcomes (Allen et al., 2013; Harris et al., 2011). Moreover, the results further support previous assertions and findings from the literature that suggests that the relationships formed during socialization and their attitudes towards the socialization affect employees’ job and organizational perspectives (Allen et al., 2013; Fang et al., 2011; Hatmaker, 2015; Jones, 1986; Levinson, 1965; Morrison, 2002; Sun et al., 2019; Van Maanen & Schien, 1979).

Hypothesis 12, “Job embeddedness mediates the relationship between socialization outcomes (social integration, role clarity, task mastery, and autonomy) and employee engagement,” was examined using five mediational analyses with job embeddedness as a mediator of the relationship between STARS and engagement, respectively. Overall, job embeddedness mediated each relationship, excluding the relationship between task mastery and engagement. These results further suggest job embeddedness as significant mediator connecting socialization to important individual employee outcomes (Harris et al., 2011).

Hypothesis 13 examined the relationship between employee network sizes and STARS, job embeddedness, and engagement. The findings indicated that job
embeddedness and engagement are positively and significantly related to the number of connections participants identified, with autonomy approaching significance at a 95%CI. All other variables were not significantly related to the number of connections participants identified. Furthermore, when examined as network size total, none of the relationships were significantly related. An interpretation of this finding is that employees who identify more connections may also be more embedded due to the multiple links that play a part in their organizational experience. In a similar way employees who identify more connections may also be more engaged in work because of the relationships they have formed. Still, the results do not support previous findings that suggest that network size positively relates to network size (Fang et al., 2011; Hatmaker, 2015; Morrison, 2002).

Hypothesis 14 examined the impact that newcomer network strength has on STARS, job embeddedness, and engagement. As previously mentioned, strength was measured in terms of both frequency of communication with the connection and the quality of relationship with the connection (the connections they identified). The results of the analyses indicated that frequency of communication was significantly and positively related to social integration and task mastery, and quality of the relationship was significantly and positively related to STARS, job embeddedness, and engagement. In line with previous findings, the results of this study suggest that how often an employee communicates with members in their network is also significantly related to how well they feel they have socially integrated and the extent to which they have mastered the tasks of their job (Fang et al., 2011; Hatmaker, 2015; Morrison, 2002).

An interpretation of these findings is that employees’ feelings on their ability to
integrate socially is likely to be related to how often they communicate with the members of their network. Employees who communicate often with members of their network are likely to understand their social position better than someone who does not communicate often with the members of their network (Allen et al., 2013; Fang et al., 2011; Hatmaker, 2015; Jones, 1986; Levinson, 1965; Morrison, 2002; Sun et al., 2019; Van Maanen & Schien, 1979). In a similar way, employees’ feelings towards their level of task mastery are likely influenced, if not related to, by the interactions they have with those in their network (Fang et al., 2011; Morrison, 2002; Peltokorpi, 2022). Employees who communicate more frequently with their members of their network have more opportunities and instances to conduct job tasks in the presence of other members. In addition, communicating with members of one’s network more often may also provide employees frequent opportunities to showcase the tasks of their role.

With regards to the significant and positive relationships among quality of relationships with STARS, job embeddedness, and engagement, respectively; these findings suggest that the perceived quality of the relationships one has with those in their network is significantly tied to how well they have socialized, how embedded they are, and how engaged they are. These findings are very powerful because they reflect that employees’ feelings on the members of their network play a significant role in the perceptions employees’ have about their adjustment to their role and their attitudes towards their job (Allen et al., 2013; Fang et al., 2011; Hatmaker, 2015; Jones, 1986; Levinson, 1965; Morrison, 2002; Sun et al., 2019; Van Maanen & Schien, 1979). Moreover, these results suggest an obvious but important point, the quality of a relationship and the connection formed likely matters more than how often one
communicates with the members of their network. To put another way, merely communicating with a member of one’s network often does not constitute a quality relationship, nor does frequent communication necessitate one to have positive attitudes towards their job. For example, it is likely that an employee who must communicate frequently with a coworker who they have a bad relationship with, will not contribute to the employees’ job attitudes.

Hypothesis 15 examined the relationship that network status has with STARS, job embeddedness, and engagement. Unfortunately, none of the relationships examined demonstrated significance (only job embeddedness approached significance). A possible explanation for the lack of support for Hypothesis 15, could be that the status of those in one’s network plays a role in understanding employee outcomes not accounted for in this study. For example, the status of those in an employee’s network might influence employees’ feelings of importance or power. Having a network full of connections with high status may also relate to the interests of DEI, in that employees with a network full of connections with high statuses may feel a greater sense of value than those at the similar organizational levels without those connections. Additional insights on the impact of network characteristics on employee outcomes are discussed in the limitations and future directions sections.

Hypotheses 16-18 examined which kinds of capital provided by network connections are significantly and positively related to STARS, job embeddedness, and engagement. The findings from the analyses indicated that higher scores for employees with social capital from their network connections were significantly related to all outcomes excluding task mastery. In addition, higher scores for human capital were
significantly and positively correlated with each outcome excluding task mastery, and higher scores for cultural capital were significantly and positively related to all outcomes including task mastery. Taken together these results echo the findings from Hypothesis 14, in that they demonstrate that “what” network connections provide, impacts employees’ perceptions and job-related appraisals. To this end, if network connections provide employees with important organizational information and individual support, newcomers benefit (Allen et al., 2013; Fang et al., 2011; Hatmaker, 2015; Jones, 1986; Levinson, 1965; Morrison, 2002; Sun et al., 2019; Van Maanen & Schien, 1979; Yoon & Lawler, 2006). Employees who receive social capital from members in their network potentially find it easier or less stressful to work at their job because of the social support they receive (Yoon & Lawler, 2006). Employees who receive human capital from members in their network may feel that their work environment is fulfilling and attitude bolstering because of the consideration and care provided by those who provide the employee with human capital (Yoon & Lawler, 2006). In addition, employees who receive cultural capital from members in their network may feel more equipped to understand their organization, work environment and their role well in part because of the insight garnered from those who provide the employee with cultural capital (Yoon & Lawler, 2006).

Limitations and Future Directions

Sampling Limitations

Although support was found for many of the hypotheses proposed, and interesting results were found through the examination of the research questions; there are several limitations to this study that should be addressed in a replicative and or future study. At the forefront of the list of limitations regards the sample used. First, although the
intention of this study was to develop a comprehensive model capturing the temporal relationship connecting socialization to employee engagement, the sample used was gathered cross-sectionally. Because this study examined participant responses cross-sectionally, the findings fail to address the true temporal relationship proposed. This is particularly important to consider when interpreting the findings from the mediation analyses. In order to more accurately validate the findings observed and increase the generalizability of the findings, a longitudinal study should be conducted. A longitudinal study, examining the proposed relationships and overall model, would be more representative of the newcomer socialization and onboarding life cycle. Specifically, in order to test the comprehensive model more accurately a longitudinal study would allow variables to be collected as they occur within the model.

Second, another limitation related to the sample is that it includes employees onboarded during and around the time of the COVID-19 pandemic. Although in many ways the sample used was chosen in particular because of the historical scientific interests, it presents a limitation in that the findings observed here may reflect relationships observed during an anomalous time period. A replication of this study, with data from a sample of newcomers socialized into a job role during a time period more distal to the pandemic, would allow the generalizability of the relationships observed to be tested. Third, another sample related limitation is that the data was collected through Amazon Mechanical Turk. Although Mturk samples provide generally reliable data, potential issues such as automated computer responding, and duplicate responding are always a concern (Paolacci et al., 2010). Using attention checks, and other participant screening methods, along with thorough data cleaning should alleviate potential validity
issues (Meade et. al., 2012).

This study intended to examine the proposed relationships with samples collected through Mturk and a snowball approach. Unfortunately, the snowball method did not result in enough valid responses and was insubstantial for examination or comparative analysis. A replication study could be conducted using a sample from a specific industry or through a different sampling method. An additional limitation identified by a few participants was the length of time it took them to take the survey in relationship in general and in relationship to the compensation for Mturk participants. This limitation could be addressed by attending to the first limitation; using a longitudinal study. In doing so, the survey would not only more objectively represent the newcomer lifecycle and reduce participant response fatigue.

Another potential influential factor of these results is the use of an employee sample hired during the COVID-19 pandemic. Although of particular interest to this study, using a sample of participants hired during a time of global concern may concern the generalizability of the relationships observed. The scale of concern, at its height, impacted many aspects of work processes as well as interpersonal dynamics. In addition, early attempts to adapt organizational processes online may have impacted the experience of employees onboarded, and in turn impact the reliability of the relationships observed.

Other limitations of this study pertain to issues with model fit and reliability of the socialization measure. Each socialization model (excluding the bifactor model) indicated poor model fit, and the formal / informal subscale had low reliability. Still, past examinations of the measure and the three model variations, indicate support for the fit and reliability of the measure (Jones et al., 1986; Perrot et al., 2012).
**Issues with Socialization Model fit and Metric Reliability**

Within this study, survey item 2 of the formal/informal subscale, “During my training for this job I was normally physically apart from regular organizational members,” was removed due to reliability issues. This was done due to its poor inter-item correlation and a data interpretation indicating that it may function as a reverse coded item; when in fact, the item reflects a property of the formal approach. In addition, item 4, “Much of my job knowledge has been acquired informally on a trial-and-error basis,” was included in the model fit and reliability analyses, although the item had a low inter-item reliability. These finding could indicate a change in the way approaches to socialization are evolving. As the environment in which socialization occurs becomes more virtual and geared towards autonomy, the way we understand and examine the impact of socialization must evolve.

**Future Socialization Research Directions**

Overall, future studies should look to examine the integrity of the socialization measure and its subsequent three models, utilize a variety of sampling methods, and explore a possible update or adaptation of the original framework developed by Van Maanen & Schien (1979). If these results reflect a real change in the validity of the measure or a possible change in the evolution of socialization, a re-examination of the model and or an update to the measure should be investigated further. Ultimately, the items and the subscales they exist within may need to be re-examined to account for the increase in the use of virtual socialization delivery. A future study should consider the possibility of re-examining the foremost models of socialization, updating and operationalizing the institutionalized subscale to reflect or account for an online / hybrid
environment, and the positive associations observed using the scale developed from Jones (1986) replicated.

In addition, researchers should consider the unique contexts and circumstances that impact the relationship between socialization approaches and their respective outcomes. For example, the findings from this study and from other research in the domain of socialization, support that collective approaches have a significant and positive impact on employee outcomes (Gruman et al., 2006; Jones et al., 1986; Saks et al., 2007; Perrot et al., 2012; Van Maanen et al., 1979), but individual approaches promote role creativity (Jones et al., 1986; Perrot et al., 2012). Collective formats promote a sense of unity among other newcomers and those employees before them (Gruman et al., 2006; Jones et al., 1986; Saks et al., 2007; Perrot et al., 2012; Van Maanen et al., 1979), however, individual approaches can promote role creativity (Jones et al., 1986; Perrot et al., 2012). A future study should consider and explore how the benefits of a collective format can be most effectively adapted for remote and hybrid work.

In addition, formal vs informal approaches need to be investigated further. A formal approach provides structure to the onboarding process (Jones et al., 1986; Perrot et al., 2012; Pike, 2014), and it may be more beneficial to new employees, especially those onboarded during COVID. To this end, formal approaches generally provide newcomers with greater direction and sense of purpose, when they include activities that facilitate orientation into the organization and their role, as well as when they relate to pertinent job elements and the orientation (Allen, 2006; Bauer et al., 2007; Pike, 2014). Still, the operationalization of a formal vs informal approach may be inaccurate or ineffective if the chosen approach does not reflect the space in which the work is meant
to be done (Jones et al., 1986; Perrot et al., 2012; Pike, 2014). If the approach used is not salient to the actual work environment, this could impact the effectiveness of socialization as well as the positive link between socialization and engagement.

Furthermore, providing a separate space or environment for newcomers away from other employees is thought to help newcomers develop their skills without distraction or pressure to perform (Jones et al., 1986; Perrot et al., 2012; Van Maanen & Schein, 1979). This specialized attention is indicative of a formal approach because, in a sense, it legitimizes the operations that occur during socialization, and helps to distinguish the line between training developed during onboarding vs. on-the-job training (Jones et al., 1986; Perrot et al., 2012; Van Maanen & Schein, 1979). Future studies should look to examine how the implications of physical separation, indicative of “work from home” or hybrid/remote work options, may have impacted the formal-informal paradigm. Coupled with the poor fit observed from the models examined and the poor observed reliability of the formal-informal subscale, a future study should look to examine the integrity of the measure as well as how formal and informal approaches feel and operate in remote and hybrid work situations.

Along with collective-individual and formal-informal subscales, the other approach paradigms should be examined. With regards to sequential vs random, a sequential approach provides employees with specific information about the socialization and selection-related processes (Allen, 2006; Jones, 1986; Perrot et al., 2012; Pike, 2014; VanMaanen & Schein, 1979). When uncertainty is high, sequential approaches may be preferred because they can facilitate a sense of purpose and direction for the individual. Still, a random approach allows more control for the new employee to complete the
elements of training in no specific order (Allen, 2006; Pike, 2014; Perrot et al., 2012; VanMaanen & Schein, 1979). If the position being filled requires creativity and role innovation over uniformity and procedure, then a random approach may be more consistent with how the organization and its employees operate (Jones et al., 1986; Perrot et al., 2012). Future studies should examine the contexts in which a sequential or random approach is most effective.

To a similar extent a fixed approach, vs a variable approach, helps to alleviate concerns that many new employees have with starting a new job because it provides employees with a clear timetable and process of the socialization process (Allen, 2006; Gruman et al., 2006; Saks et al., 2007; Perrot et al., 2012; Van Maanen et al., 1979). Well-developed fixed approaches require a high degree of certainty on the behalf of the socialization developer, so in some cases, where organizations need to adapt processes online quickly such as during COVID, a variable approach might be used while all processes are being adopted. To this end, although a variable approach may be categorized as a less precise approach, the content should remain as exhaustive as the fixed approach (Jones et al., 1986; Perrot et al., 2012). Future studies should look to examine the conditions where a fixed vs variable approach is preferred and how both approaches contribute to positive employee outcomes and job attitudes. In addition, researchers should also consider the positive impacts of serial (vs disjunctive) and institute (vs. divestiture) approaches.

In line with Socialization Theory, both serial and investiture tactics allow for newcomers to develop meaningful connections to the organization through its members, which in turn strengthens their feelings of being integrated (Boswell et al., 2005; Jones et
Furthermore, by building these relationships, newcomers tend to gain more confidence and competence in their roles (Allen, 2006). Serial tactics bolster newcomers’ sense-making by facilitating the development of interpersonal relationships with experienced members of the group who provide and direct them to valuable company resources (Allen, 2006; Gruman et al., 2006; Jones et al., 1986; Saks et al., 2007; Perrot et al., 2012; Van Maanen et al., 1979). In addition, an investiture approach speaks to the importance of thoughtful interpersonal support during the newcomer socialization process, in that a characteristic of the investiture approach is positive reinforcement. Moreover, when positive reinforcement occurs is provided by knowledgeable, seasoned, and or tenured employees, and designed to motivate newcomers through validation and encouragement (Jones et al., 1986; Perrot et al., 2012; Pike, 2014; Saks et al., 2007; Van Maanen et al., 1979). However, in some situations a divestiture approach may still be used.

Because disjunctive and divestiture approaches are thought to be less interpersonally affirming focused, and more knowledge, skill, and ability acquisition-focused (Jones et al., 1986; Perrot, 2012), disjunctive and divestiture approaches may only offer benefits to newcomers under certain circumstances. For example, employees who navigate a disjunctive socialization program effectively may benefit from a greater sense of self-esteem or self-efficacy; having to develop job related knowledge, skills, and abilities on their own. In addition, the direct nature of the divestiture approach might be more apparent for jobs that are more serious in nature (i.e., police, firefighter, army soldier), and or require a high degree of individual performance (i.e., surgeon, lawyer,
broker). Organizations that operate in fast-paced, competitive, and potentially dangerous industries or work environments, may put less emphasis on newcomers’ feelings and more on their ability and safety. Taken together, future studies should examine how these socialization approaches influence employees’ perceptions, how socialization operates across different job-domains, the most effective approaches within different industry and organizational contexts, in addition to how each approach strengthens employee job embeddedness and engagement.

**Future Directions for Socialization, Job Embeddedness, Engagement, and STARS**

This study is the first to examine the relationship between socialization and engagement through the mediator of job embeddedness, as well as the first to examine how social integration, task mastery, role clarity, and employee satisfaction with socialization relates to and impacts these relationships. In addition to their conceptual link to socialization, job embeddedness and engagement were examined because of the significant role they play in accounting for unique variance in important individual employee outcomes. Previous research indicates that job embeddedness and engagement both predict significant variance in employee performance and turnover intentions, as compared to other job attitudes (see Mackay et al., 2017 for engagement; see Crossley et al., 2007 for job embeddedness). Furthermore, the influence of socialization on these job attitudes as well as the role STARS and network characteristics play in accounting for variance in these outcomes is understudied.

Overall, the results provide support for the positive impact institutionalized socialization tactics have on employee engagement, and furthermore, STARS and job embeddedness impact this relationship positively. Still, due to the novelty of this study
and the variables examined, a replication of this study should be conducted. In particular, the three-item satisfaction with socialization measure should be further examined to provide greater empirical support for its use. Furthermore, future studies may examine whether the observed relationships accurately represent the temporal relationships proposed.

Aside from the variables and relationships examined within this study, future studies should also consider the impact of individual factors that influence the relationship between socialization and engagement. In addition, researchers may investigate other potential mediators and moderators that impact employees such as perceived organizational support and employee adjustment. This study examined the significant impact that STARS and some network-related factors, have linking socialization to engagement, however, as mentioned above, engagement also indicates that individual and dispositional qualities also influence employees’ appraisals of engagement. For example, employees’ individual appraisals of insecurity (Kahn, 1990), self-consciousness (May et al., 2004), neuroticism, extraversion (Christian et al., 2011; Langelaan et al., 2006), conscientiousness (Gan et al., 2014), resilience (Bakker et al., 2006), self-efficacy (Rich et al., 2010; Simbula et al., 2011; Xanthopoulou et al., 2009), self-esteem, optimism (Rich et al., 2010; Simbula et al., 2011; Xanthopoulou et al., 2009), responsibility (Christian et al., 2011), spirituality (Roof, 2015) and positive psychological capital (Paek et al., 2015; Thompson et al., 2015), significantly contribute to employees’ appraisals of engagement (see Sun et al., 2019 for additional information on these and other related studies).

To this end, many of the individual variables, may impact or have a significant
association with components of institutionalized socialization tactics. For example, future studies may consider the role institutionalized socialization tactics play in bolstering resilience, self-efficacy, self-esteem, and their role in reducing feelings of insecurity. Indicative of an investiture approach, the positive reinforcement provided by those involved in newcomer socialization empowers them in their role and helps them adjust to their job (Jones et al., 1986; Perrot et al., 2012; Pike, 2014; Saks et al., 2007; Van Maanen et al., 1979). In addition, the results of this study indicate a significant positive relationship between institutionalized tactics and employee appraisals of global job embeddedness, as well as with employee on-the-job fit. It is possible that institutionalized tactics not only contribute to employee affect and perceptions of STARS but also their motivation and or positive perceptions of self.

Researchers may also consider the role personality plays in the relationship between socialization and outcomes such as STARS job embeddedness, and engagement. It is possible that individuals with certain personality traits or personality profiles may prefer or benefit more from certain approaches. For example, extroverted newcomer employees may prefer certain aspects of institutionalized socialization tactics, especially tactics and approaches that promote social engagement. On the other hand, introverted newcomers may care less about opportunities for social engagement and care more about acquiring the necessary knowledge, skills, and abilities of the role. In a similar way extroverted newcomer employees may care more about how well they have socially integrated into their role, whereas introverted newcomer employees may put more merit on their overall satisfaction or the autonomy of their position.
Limitations and Future Directions for the Impact of Online Socialization

Another limitation of this study concerns the examination of the impact of virtual or online onboarding on employee perceptions. Although, this study contributes to the socialization literature by being the first study to examine the association between socialization tactics and online onboarding, as well as the first to examine the potential moderating role online onboarding plays between socialization and its respective outcomes; this study failed to find support for its impact. To this point, the percentage of socialization conducted online was examined using a single item on a scale from 0-100. Moreover, participant scores on this item were not standardized and the standard deviation among participant scores was around thirty-five points. By using only one question, measured on a scale from 0-100, it is unclear whether the lack of the support indicates that there is no difference in the newcomer experience when onboarded in person or online. Essentially, these results would suggest that the medium in which onboarding is delivered has a negligible impact on employees’ STARS, job embeddedness, and engagement. In addition, the participants examined in this study were onboarded during and around the time of the COVID-19 pandemic, suggesting that many employees would have been onboarded online. In this way, these results are also potentially impacted by the quarantine mandates and the CDC health recommendations. These results may not replicate as more time passes from the beginning of the pandemic and the end of the quarantine mandates. Also, the role and impact of hybrid socialization practices and hybrid work were not fully explored. A greater investigation needs to be conducted to understand whether hybrid work environments contribute to differences in the effectiveness of institutionalized socialization tactics, as well as to newcomer STARS, job embeddedness, engagement, and even network development.
With organizations around the globe transitioning more of their operations online and offering their employees opportunities for remote and hybrid work formats; future studies should consider what aspects of the socialization process are more impactful for employees when experienced in-person vs online. Employees within certain roles, positions, and or jobs may benefit from face-to-face and in-person socialization interactions if the work they do requires them to directly with clients, such as those in the medical field or frontline and or service employees. However, if employees work within roles that are primarily facilitated and conducted online, such as data analysts, information technology specialists, or even call-center workers, virtual or online onboarding may contribute to greater employee adjustment. Moreover, future studies should consider how in-person vs online socialization impacts newcomer adjustment and their perceptions of STARS, job embeddedness, engagement, and network development across different job and work domains.

**Limitations and Future Directions for Network-Related Analyses**

This study also examined the association between employees’ egocentric network and socialization outcomes, as well as the impact that network connections, who provide social, human, and cultural capital to newcomers, have on STARS, job embeddedness, and engagement. An initial limitation in examining employee’s ego-centric networks is the lack of information from the perspective of the connections identified. Moreover, without considering the perspectives of those who participants identified as having a relationship with the participants; the data only provides insight on half of the identified relationships. To this end, because this study did not find similar support for previously supported relationships (see Morrison, 2002), and did not examine the impact that
network density and range have on the socialization outcomes of interest; a future study and or replication should consider obtaining dyadic network data as well as examine the impact of network density and range on STARS, job embeddedness, and engagement.

Another limitation of this study is the depth of insight that can be garnered form the significant relationship observed between different forms of capital and socialization outcomes. Although the significant findings provide support for the proposed relationships, each form of capital was only examined using one question (see Methods or Appendix C for questions). In addition, although not necessarily a limitation, research examining the role of different forms of capital is relatively understudied. To better understand the impact that different forms of capital have on socialization outcomes and employee perceptions, a future study should consider what forms of capital provide the greatest benefit to employees with regards to specific employee outcomes. Additionally, with regards to the individual question asked about each form of capital network connections provide, researchers should consider providing with a wider range of behaviors network connections engage in and or the types of resources connections provide that fall within the various forms of capital (social, human, cultural).

**Limitations and Future Directions for Final Model**

Another limitation of this study concerns the final proposed model depicting the relationship between socialization and engagement. Although many of the established relationships present in the final model were found to be supported within this study, the results of this study expose a need to examine the temporal components suggested by the model. Moreover, being able to examine how newcomers’ networks begin to form and the impact socialization has on this process, would provide greater generalizability of the
results from this study. Other opportunities to examine the model also emerge, for example, examining the relationships using structural equation modeling would provide greater insight on the direct, indirect, and moderating influence of the relationships proposed. In addition, a future examination of this model would also do well to include individual and dispositional characteristics of the newcomers. Although the relationships examined demonstrate the affective and individual perceptions of newcomers’ appraisals of socialization approaches, SMARTS, job embeddedness, engagement as well as network related appraisals, additional insights about the relationships between socialization and engagement may be drawn from examining how newcomers’ personalities and other self-related perceptions impact the relationships proposed. Finally, future examinations of this model should consider the additional insight that can be gained from examining the perceptions of the members who newcomers identify as a part of their network. Being able to measure both perspectives of the relationship would also allow network density, range, as well as agreement related to network strength to be examined and considered in the proposed relationships.

**Applied Recommendations**

In addition to contributing to the literature surrounding socialization, STARS, engagement, and network analysis, these findings also offer practical insights for organizational practitioners and leaders. In line with previous empirical research, the findings from this study support the significant impact that early organizational onboarding experiences have on newcomers’ abilities and feelings towards their organization (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979).
Moreover, socialization has the most positive impact on employees’ attitudes when it is designed to prepare employees for their roles and delivered to employees thoughtfully (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Judge et al., 2012; Schleicher et al., 2015; VanMaanen et al., 1979; Weiss et al., 1996). Organizations who utilize the positively reinforcing and structured tactics that make up the institutionalized socialization approach (Chao et al., 1994; Jones, 1986; VanMaanen et al., 1979), are more likely to find that their newcomers feel socially integrated, have greater task mastery, perceive greater role autonomy, and experience greater role clarity. These employees are also more likely to be embedded in their job and more engaged in their work. In addition to utilizing institutionalized socialization tactics, organizations should also consider how and where employees are being socialized.

As organizations move operations online and offer opportunities for employees to work remotely or in a hybrid format, it becomes increasingly important to consider the potential impact online socializing and onboarding has on newcomers’ perceptions and performance. Newcomers onboarded through a virtual space, in which they are physically separated from other employees may have trouble in developing interpersonal connections, receiving the resources and information they need to be successful in their role, as well as understanding of how their role fits within the greater organizational system. Even within the most successful organizations, as newcomers leave the initial onboarding stage, they tend to experience a rise and fall in engagement and performance; commonly referred to in the literature as the Honeymoon Hangover Effect (Louis, 1980). During the socialization process employees will feel an enhanced sense of unity with the
members due to the spotlight (honeymoon period) of support and interest from these leaders and mentors, which consequently strengthens their affective and behavioral commitment to the organization for a period (Boswell, 2005; Louis, 1980; Yoon & Lawler, 2006). The vested interest organizations take in their newcomers tends to fade as newcomers finish onboarding and another iteration of newcomers are hired (hangover) (Louis, 1980; Yoon & Lawler, 2006).

Organizations need to take extra care and initiative in transitioning socialization and other operations online, as well as continue to bolster newcomers with continued support and resources. Organizational leaders and practitioners would do well to consider that even when formal socialization/onboarding process has finished, that the socialization of employees does not stop (Allen & Shanock, 2013; Boswell et al., 2005; Chao et al., 1994; VanMaanen & Schein, 1979). Newcomers continue to develop interpersonal relationships, their skills, as well as a deeper understanding of how they fit within the organization.

To this end, organizational leaders and practitioners need to consider how their formal socialization programs directly contribute to newcomers’ understanding of their position, their feelings towards their role and organization, as well as the facilitation and development of newcomers’ network. With this in mind, organizational leaders and practitioner should consider which organizational members are involved with the onboarding of newcomers’, as well as how current employees facilitate newcomer adjustment during and towards the end on formal onboarding (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979). Employees involved with the onboarding of
new employees should be knowledgeable on information that pertains to newcomers’
positions, the resources they need, as well as organizational culture, practices, and values
(Aiken et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986;

It is also important for organizations to consider the impact that organizational-
related capital has on employees’ experiences. Being able to provide newcomers with
social, human, and cultural capital is critical in creating a deeper relationship between
employees and their organization. When employees have interpersonal relationships with
their coworkers and their leaders, they are more likely to perceive their job and their
organization more positively. Moreover, by investing time into the development and
sustainment of strong interpersonal relationships among all members of the organization,
a greater sense of unity and accountability is likely to result. To this end it is important
for organizations to understand what types of capital is most important in keeping
employees engaged and empowered in their work. In addition, it is also important to
consider which members of an organization are providing different types of capital to
employees. These employees may be formal or informal leaders, those directly or more
ancillary involved in the facilitation of the onboarding process, tenured or even more
newly hired employees.

In many ways, organizational leaders rely on the knowledge, skills, and expertise
of their more tenured employees, as well as those involved with onboarding, to maintain
and reinforce the organizations’ culture and practices (Morrison, 2002). Moreover,
employees who hold a formal or informal leadership or mentorship position are involved
in newcomer onboarding, newcomers may feel a stronger sense of importance and
connection to their work and work environment (Yoon & Lawler, 2006). As newcomers become acclimated, they notice which employees hold a leadership position and or which employees provide resources and capital to others. For newcomers especially, having a good relationship with these leaders and critical members can foster feelings of connectedness to the organization and its members, as well as reinforce newcomers’ commitment to the organization (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Brewer, 1991; Chao et al., 1994; Feldman, 1981; Jones, 1986; Morrison, 2002; VanMaanen & Schein, 1979; Yoon & Lawler, 2006). To this end, effective socialization should positively impact newcomers’ sense of ability to perform within their role. With regards to this study, institutionalized socialization practices impact how employees feel about their level of social integration, the autonomy they have in their role, their role clarity, as well as their mastery over the tasks of their job.

Just as important as developing interpersonal relationships, onboarding should contribute to newcomers’ positive perceptions related to their identity and ability. Organizational leaders that empower newcomers through institutionalized socialization tactics are likely to see greater efficiency, fewer mistakes, and ultimately a lower degree of employee turnover (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979; Yoon & Lawler, 2006). That being said, organizational leaders also need to consider how to embed opportunities and activities that promote interpersonal interaction, while also appealing to the individuality of employees (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979; Yoon & Lawler, 2006). For example, although collective
onboarding tactics are a part of the institutionalized socialization approach, a collective approach could reduce the likelihood of meeker employees speaking up during or fully engaging in the onboarding process. When followers feel that they have a strong, individual and personal relationship with their leaders, they will have greater motivation to perform (Bass, 1985). In addition, employees benefit greatly when they work in an environment that promotes a sense of belonging, inclusion, acceptance, and individual uniqueness (Brewer, 1991). With DEI (diversity, equity, and inclusion) becoming a popular area of study, and the findings from the domain indicating the impact perceptions of DEI have on employee and organizational outcomes; it will be important to consider how DEI relates to and is included in the process of socialization. Organizations would do well to consider how to bolster positive perceptions of DEI among employee within the process of socialization.

To a similar extent, organizations need to consider how their socialization and onboarding processes are received by newcomers. Upon the completion of the formal socialization and onboarding program, organizational leaders and practitioners should examine how satisfied newcomers are with said program. Based on the results of this study, the satisfaction employees feel towards the socialization program they completed is a significant predictor of employees’ appraisals job embeddedness and engagement, as well as significantly related to social integration, task mastery, autonomy, and role clarity. Although, this study is relatively novel with the inclusion of the satisfaction with socialization measure, the results of this study and that of previous empirical findings, further suggest that employee attitudes are formed early on during socialization (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994;
Feldman, 1981; Jones, 1986; VanMaanen & Schein, 1979). To this end, collecting data on how employees feel about their experience can provide insight on employees’ attitudes towards their job, as well as provide organizational leaders insight on how to improve the socialization process.

**Conclusion**

A great deal of organizational research has been conducted to provide greater insight into the factors that shape the perspectives of employees. Although the literature on socialization approaches and or tactics is understudied, the research conducted in this area reflects that early experiences strongly influence employees’ perceptions and cognitions towards work (Afsar et al., 2016; Ahmad et al., 2019; Allen et al., 2013; Boswell et al., 2005; Chao et al., 1994; Feldman, 1981; VanMaanen & Schein, 1979). In large this study examined the impact socialization has on employees’ perceptions of STARS, job embeddedness, and engagement, as well as the impact employees’ networks have on these relationships. However, this study provides greater insight on the future of organizational socialization.

To some extent, the interest in understanding the future of socialization was sparked by the impact of the COVID-19 pandemic. The shared global experience acted as a catalytic force compelling people and organizations to consider the opportunity, and potential eventuality, for remote and work from home opportunities. Regardless of debating over how exactly this trend will unfold, the move towards an online work environment requires thoughtful consideration. Organizations that have experienced or anticipate a change in their industry or the way in which their organization operates, would do well to consider how to give their employees the best opportunity to succeed
and do well within their role and with the organization at large.

Reports from several leading businesses, professional organizations, and institutions (i.e., Harvard Business Review and Forbes), as well as organizations in the Tech and HR consulting, information sharing, business tech safety (B2B sites), and software sharing domains (i.e., Click Boarding, Typelane, SoftwareAdvice.com, Findstack, TechJury, FinanceOnline.com, Flex Jobs, and ReWorked.co.) emphasize the potential issues moving to an online format. Experts from the Harvard Business Review highlight the significant impact that small talk among coworkers can have on camaraderie, easing into interviews, business negotiations, and performance reviews (Methot et al., 2021). In addition, an April 2021 article posted in Forbes, by Julia Wench, a Forbes Contributor, highlights areas in which virtual socialization can have a negative impact on employees; such areas include company culture, affect towards the company (goals, values, attitudes, and practices), issues related to equity, a lack of interpersonal connection, as well as issues with procedural and systems related operations and technology.

For organizational leaders, current employees, and future employees, this move towards an online work environment will require the acquisition of additional knowledge, skills, and abilities. For many this could be a possible area of concern for older employees, non-tech savvy employees, as well as a general possible concern for any employee who must learn a new process or technology in order to do their work. With this in mind, and in combination with the results of this study, it will be increasingly important for organizational leaders to consider how to ensure a thorough and thoughtful socialization program for new employees, especially.
In addition to how socialization is conducted initially, it is important to remember that socialization is an ongoing process. After the official socialization/onboarding is completed, socialization continues to occur. Furthermore, when employees perceive that their organization and its members provide direct interest and support for their work, a sense of obligation is increased within the employee which compels them to be engaged (Eisenberger et al., 1986; Sun et al., 2019). In addition to thorough and thoughtful socialization practices organizations may also consider tools that specifically aimed at enhancing the socialization process, for example new member mentoring programs. Effective mentoring can further acclimate a new employee via providing them with a personal tie to the organization and enhancing their overall perception of organizational support (Mackay et al., 2017). Overall, the findings and conceptual factors from this study, indicate an opportunity to examine the relationship between socialization and employee engagement with other samples, as well as to further investigate the nature of the roles that STARS, job embeddedness, and network components play in linking socialization to engagement. Finally, because the move online is inevitable the impact of online socialization and virtual work on employee attitudes and other important employee outcomes needs to be further investigated.
References


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Appendix A

Sample Email

Hello and Happy Summer!

My name is Alexander DeChurch M.S., and I am currently working on my dissertation as a PhD candidate in the Industrial Organizational Psychology Department at The Florida Institute of Technology. I am reaching out to you, your department and any members of your university that were hired and onboarded from January 2019 up until now.

My study looks at how onboarding and socialization was conducted and received by newcomers hired during and around the time of the COVID 19 pandemic.

I would love the opportunity to collect some data from faculty and staff members at your university. My data collection process will be conducted over the next two weeks.

If you are interested in helping me out, please send me an email back at my email address, and I will send over access to my survey link. If you have any additional, please feel free to reach out to me either at my email or my cellphone number (330-727-1060), or my advisor and the head of the Industrial Organizational Psychology Department at Florida Tech, Dr. Gary Burns (gburns@my.fit.edu).
Appendix B

Informed Consent for Human Subject Research

Please read this consent document carefully before you decide to participate in this study. By clicking the continue arrow at the bottom of this form, you agree to participate in the research study titled “Socialization During COVID,” which is being conducted by Alexander DeChurch, M.S. (adechurch2017@my.fit.edu). If you have any questions please reach out to the researcher through his email or reach out to the head of the Industrial/ Organizational Psychology program, Dr. Gary Burns (gburns@fit.edu). Please ask the researcher any questions you have before you sign this form.

The following points provide an overview of the purpose and procedure of the study, as well as your rights and benefits as a participant if you agree to participate:

**Study Title:** Socialization During COVID

**Eligibility Requirements:** Participants must be 18 years of age or older to participate in the study AND hired between January of 2020 to present.

**Purpose of research study:** This study looks to examine the impact of onboarding and socialization on positive job and attitude-related employee outcomes. You will be asked to answer questions about your experience entering the organization up to your current experience. More specifically, you will be asked to answer questions pertaining to your relationship with others in your organization, your job and job, and your connection to the organization.
Procedure: In this study, you will answer survey questions through an online platform. This survey will should take between 30-45 minutes to complete. Once you are finished, please hit the continue button on the bottom of the screen. Once there, you will be debriefed on the study.

Potential Risks of Participating: There are no foreseeable risks regarding participating in the surveys.

Potential Benefits of Participating: You will have an opportunity to reflect on your early experiences as well as your current feelings towards your job and organization. By participating in this study, you will contribute to the body of research interested in the impact of employee onboarding processes on employee attitudes.

Compensation: You will receive $1 for your participation.

Confidentiality: All the data collected for this research study will be confidential; your information will not be provided to anyone outside the research team. The data will be stored in a secure and password-protected server and your personal identifying information will not be connected to your study responses.

Voluntary Participation: Participation is voluntary. You can refuse to participate or stop taking part at any time without giving any reason, and without penalty or loss of benefits to which you are otherwise entitled. If you decide not to participate at any point, exit out of the survey and close the window.

Right to withdraw from the study: You may discontinue participation at any time
without penalty or loss of benefits to which you are otherwise entitled. If you decide to stop or withdraw from the study, please let the researcher know.

**Whom to contact if you have questions about the study:** All questions should be directed to the Principal Investigator, Alexander DeChurch, M.S. at, adechurch2017@my.fit.edu, or gburns@fit.edu or at 321.674.7315.

**Whom to contact about your rights as a research participant in the study:**

- Dr. Jignya Patel, IRB Chairperson
- 150 West University Blvd.
- Melbourne, FL 32901
- Email: FIT_IRB@fit.edu Phone: 321.674.7347

**Agreement:**

I have read the procedure described above. I voluntarily agree to participate in the procedure, and I have received a copy of this description.
Appendix C

Full Survey

Demographics

What is your age? (In years)

Select one or more races that you identify as

- White or Caucasian
- Black or African American
- Native American or Alaska native
- Asian
- Native Hawaiian or Pacific Islander
- Other
- Prefer not to answer

What is the highest level of education you have received?

- Some high school or less
- Highschool diploma or GED
- Some college, no degree
- Associates or technical degree
- Bachelor’s
- Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.)
- Prefer not to answer

Please write the job domain that best represents your job, position, and or role. (Job domain)

My position and or job is

- Part-time
- Full-time
- Seasonal

Please select the range that most closely matches your yearly income.

- Less than 25,000
- $25,000-$49,999
- $50,000-$74,999
- $75,000-$99,999
- $100,000-$149,999
- $150,000 or more

From the following, please choose the option you identify with most.

- Asexual
• Bisexual - male
• Bisexual - female
• Gay - homosexual male
• Lesbian - homosexual female
• Queer - male
• Queer - female
• Transgender - Transitioning to female
• Transgender - Transitioning to male
• Heterosexual - female
• Heterosexual - male
• Prefer to self-identify
• Prefer not to answer
• Other _____________________

How long have you worked in your current role?

When were you onboarded into your organization?

Please select the option that best describes how you completed your onboarding process.
• Fully in-person
• Hybrid (some in-person, some virtually)
• Fully virtual (online and or on the computer)

How much of your job is virtual?

In the prompts below you will be asked to indicate your agreement with each statement. When responding, please consider your overall experience as an employee. Also, please read the questions carefully and answer honestly.

In the following section you will be asked to think about your experience when you were first hired. Please answer carefully and honestly. Thank you!

Jones - Collective versus individual

When I was being hired, I was extensively involved with other new recruits in common, job-related training activities.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

When I was being hired, other newcomers have been instrumental in helping me to understand my job requirements.

1 2 3 4 5
This organization puts all newcomers through the same set of learning experiences.

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<tbody>
<tr>
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<td>Somewhat disagree</td>
<td>Neither agree nor disagree</td>
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When I was being hired, most of my training was carried out apart from other newcomers.

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There is a sense of "being in the same boat" amongst newcomers in this organization.

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Jones - Formal versus informal

When I was being hired, I went through a set of training experiences specifically designed to give newcomers a thorough knowledge of job-related skills.

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<td>Somewhat Agree</td>
<td>Strongly agree</td>
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</table>

During my training for this job, I was normally physically apart from regular organizational members.

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<td>Somewhat disagree</td>
<td>Neither agree nor disagree</td>
<td>Somewhat Agree</td>
<td>Strongly agree</td>
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</tbody>
</table>
I did not perform any of my normal job responsibilities until I was thoroughly familiar with departmental procedures and work methods.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

Much of my job knowledge has been acquired informally on a trial-and-error basis. (R).

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

When I was first hired, I was very aware that I was seen as an employee "learning the ropes" in this organization.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

Jones - Investiture versus divestiture

When I was first hired, I was made to feel that my skills and abilities are very important in this organization.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

When I was first hired, almost all my colleagues were supportive of me personally.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

I have had to change my attitudes and values to be accepted in this organization. ®

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

When I was first hired, my colleagues would go out of their way to help me adjust to this organization.
Jones - Sequential versus random

When I was first hired, I was shown a clear pattern in the way one role leads to another or one job assignment leads to another in this organization.

When I was first hired, each stage of the training process expanded and built upon the job knowledge gained during the preceding stages of the process.

The movement from role to role and function to function to build up experience and a track record is very apparent in this organization.

This organization does not put newcomers through an identifiable sequence of learning experiences.

The steps in the career ladder are clearly specified in this organization.
Jones - Serial versus disjunctive

Experienced organizational members see advising or training newcomers as one of their main job responsibilities in this organization.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

When I was first hired, I gained a clear understanding of my role in this organization from observing my senior colleagues.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

I have received little guidance from experienced organizational members as to how I should perform my job. ®

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

I have little or no access to people who have previously performed my role in this organization. ®

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

When I was first hired, I was generally left alone to discover what my role should be in this organization. ®

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

Jones - Fixed versus variable

I can predict my future career path in this organization by observing other people's experiences.
The onboarding process provided me with good knowledge of the time it will take me to go through the various stages of the training process in this organization.

When I was first hired, the way in which my progress through this organization follows a fixed timetable of events was clearly communicated to me.

I have little idea when to expect a new job assignment or training exercise in this organization.

Most of my knowledge of what may happen to me in the future comes informally, through the grapevine, rather than through regular organizational channels.

Socialization Outcomes

Socialization Reactions
I found the socialization and onboarding process enjoyable.

I did not like the socialization and onboarding process at this organization.
In my personal experience, the socialization and onboarding processes at my organization were helpful.

Task Mastery

I am confident about the adequacy of my job skills and abilities.

I feel competent conducting my job assignments.

It seems to take me longer than planned to complete my job assignments. (-)

I rarely make mistakes when conducting my job assignments.

Role Clarity
How clear are you about the limits of your authority in your present job?
Do you feel you are always as clear as you would like to be about how you are supposed to do things on this job?

1 2 3 4 5
Definitely not  Probably not  Might or might not  Probably yes  Definitely yes

Do you feel you are always as clear as you would like to be about what you have to do on this job?

1 2 3 4 5
Definitely not  Probably not  Might or might not  Probably yes  Definitely yes

In general, how clearly defined are the policies and the various rules and regulations of the hospital (university) that affect your job?

1 2 3 4 5
Extremely unclear  Somewhat clear  Neither clear nor unclear  Somewhat clear  Extremely clear

Social Integration
I get along with the people I work with very well

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

I feel comfortable around my co-workers

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

My co-workers seem to accept me as one of them.

1 2 3 4 5
I would rate the members of my organization as friendly.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

I could call on members of the organization to help me with personal problems.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat agree Strongly agree

**Ego-Centric Network**

How many people do you routinely talk with or work with at your organization?

In the boxes below please write the names, nicknames, or other identifiers of the people you that you work with. The names or identifiers you type will not be used or shared outside of the experiment. The information you provide will be used by you to answer the questions below.

For each member identified please respond to the following prompts.

You interact with this connection on a

- Daily Basis
- Every other day
- Weekly basis
- Biweekly basis
- Monthly basis
- Bimonthly basis
- Quarterly basis
- Annually basis

This connection was directly involved in my onboarding process

- Yes
- No
- Not Sure

This connection is a part of

- My team or work group
- My department

In relation to you this connection is your (select 1)
- Subordinate
- Assistant
- Coworker
- Supervisor/Manager
- Upper-level manager
- Director and or C-suite executive

You would describe this connection as a (select all that apply)
- Informal Leader
- Formal leader
- Mentor
- Friend
- Other_______

What is your primary mode of communication with this connection?
- Face-to-Face
- Email
- Text
- Online program (i.e., Microsoft Teams, Slack, etc.)
- Through an online video platform (i.e., Zoom, GoogleMeet)

To what extent does this connection provide you with Human Capital and or Personal Resources

An example of connection who provides you with human capital is one you can trust with personal information, you ask for advice, provide emotional support, a person you can rely on, confirms your self-worth, discuss relational problems with).

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

To what extent does this connection provide you with Social Capital and or Social Resources

An example of connection who provides you with social capital is one you can spend time / hang out with, go to social events with, gossip with, can borrow things from)

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree
To what extent does this connection provide you with Cultural Capital or Instrumental Resources

An example of connection who provides you with organizational capital is one you can need and rely on to get work done, discuss current events with, ask for help understanding organizational policy and culture, help you get work get done when you are sick)

Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

**Job Embeddedness**

**Global Embeddedness.**
I feel attached to this organization.

Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

It would be difficult for me to leave this organization.

Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

I’m too caught up in this organization to leave.

Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

I feel tied to this organization.

Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

I simply could not leave the organization that I work for.

Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree
It would be easy for me to leave this organization.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

I am tightly connected to this organization.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

Fit, community
I really love the place where I live.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

I like the family-oriented environment of my community.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

This community I live in is a good match for me.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

I think of the community where I live as home.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

The area where I live offers the leisure activities that I like (e.g., sports, outdoors, cultural, arts).

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree

Fit, organization
My job utilizes my skills and talents well.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree
Strongly agree
I feel like I am a good match for this organization.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

I feel personally valued by (name of the organization).

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

I like my work schedule (e.g., flextime, shift). I fit with this organization’s culture.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

I like the authority and responsibility I have at this company.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

Sacrifice, community
Leaving this community would be very hard.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

People respect me a lot in my community.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

My neighborhood is safe.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

Sacrifice, organization
I have a lot of freedom in this job to decide how to pursue my goals.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree

The perks on this job are outstanding.

1 2 3 4 5
Strongly disagree Somewhat disagree Neither agree nor disagree Somewhat Agree Strongly agree
I feel that people at work respect me a great deal.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

I would incur very few costs if I left this organization.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

I would sacrifice a lot if I left this job.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

My promotional opportunities are excellent here.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

I am well compensated for my level of performance.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

The benefits are good on this job.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

I believe the prospects for continuing employment with this company are excellent

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

Engagement

Engagement - Vigor
At work, I feel full of energy.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat agree  Strongly agree

In my job, I feel strong and vigorous.

1 2 3 4 5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

When I get up in the morning, I feel like going to work.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

Engagement - Dedication

I am enthusiastic about my job.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

My job inspires me.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

I am proud of the work I do.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

Engagement - Absorption

I feel happy when I am working intensely.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

I am immersed in my work.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree

I get carried away when I’m working.

1  2  3  4  5
Strongly disagree  Somewhat disagree  Neither agree nor disagree  Somewhat Agree  Strongly agree
Appendix D

Debrief

Thank you for completing this survey on socialization during COVID! Your responses will contribute to the research studying the impact that socialization has on new employees’ roles and attitudes towards their work. If you have any questions, please feel free to contact the Principal Investigator, Alexander DeChurch, M.S. at, adechurch2017@my.fit.edu, or gburns@fit.edu or at 3216747315.
Appendix E

Exploratory Analyses Results

Table 16.

**Means, standard Deviations, and Intercorrelations for Institutionalized Socialization**

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<thead>
<tr>
<th>Variable</th>
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<th>SD</th>
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*Note. N =162. M and SD are used to represent mean and standard deviation, respectively. * Indicates \( p < .05 \). ** indicates \( p < .01 \).*
Table 17.

Means, standard Deviations, and Correlations for Institutionalized Socialization STARS

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<td>.66*</td>
<td>.55*</td>
<td>.17*</td>
<td>.42*</td>
<td>.49*</td>
<td>.01</td>
<td>.05</td>
<td>.59*</td>
<td>.24*</td>
<td></td>
</tr>
<tr>
<td>Fixed/Variability</td>
<td>3.39</td>
<td>0.89</td>
<td>.38*</td>
<td>.38*</td>
<td>.33*</td>
<td>.57*</td>
<td>.60*</td>
<td>.33*</td>
<td>.36*</td>
<td>.60*</td>
<td>.72*</td>
<td>.41*</td>
</tr>
</tbody>
</table>

* Indicates $p < .05$. ** indicates $p < .01$.

Note. $N = 162$. M and SD are used to represent mean and standard deviation, respectively.

Table 18.

Means, standard Deviations, and Correlations for Institutionalized Socialization and Job Embeddedness
| Category                  | Mean | SD  | .29* | .29* | .25* | .28* | .21* | .23* | .28* | .32* | .30* | .25* | .24* | .16* | .34* | .23* | .27* | .13 | .20* | .18* | .41* | .52* | .38* | .55* | .37* | .43* | .46* | .45* | .27* | .45* | .38* | .46* | .33* | .36* | .60* | .72* | .41* |
|--------------------------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Collective/Individual    | 3.25 | 0.90 | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| Formal/Informal          | 3.44 | 0.63 | .23* | .28* | .32* | .30* | .25* | .24* | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| Serial/Disjunctive       | 3.40 | 0.90 | .16* | .34* | .23* | .27* | .13  | .20* | .18* | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| Sequential/Random        | 3.53 | 0.90 | .41* | .52* | .38* | .55* | .37* | .43* | .46* | .45* | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |
| Investiture/Divestiture  | 3.68 | 0.79 | .21* | .51* | .31* | .38* | .28* | .01  | .05  | .59* | .24* | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    | *    |

* Indicates p < .05. ** indicates p < .01.

Note. N = 162. M and SD are used to represent mean and standard deviation, respectively.
Table 19.

Means, standard Deviations, and Correlations for Institutionalized Socialization and Engagement

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engagement</td>
<td>3.65</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td>Collective/Individual</td>
<td>3.25</td>
<td>0.90</td>
<td>.32**</td>
</tr>
<tr>
<td>Formal/Informal</td>
<td>3.44</td>
<td>0.63</td>
<td>.23**</td>
</tr>
<tr>
<td>Serial/Disjunctive</td>
<td>3.40</td>
<td>0.90</td>
<td>.26**</td>
</tr>
<tr>
<td>Sequential/Random</td>
<td>3.53</td>
<td>0.90</td>
<td>.55**</td>
</tr>
<tr>
<td>Investiture/Divestiture</td>
<td>3.68</td>
<td>0.79</td>
<td>.29**</td>
</tr>
<tr>
<td>Fixed/Variable</td>
<td>3.39</td>
<td>0.89</td>
<td>.41**</td>
</tr>
</tbody>
</table>

*Note. N =162. M and SD are used to represent mean and standard deviation, respectively. * Indicates $p < .05$. ** indicates $p < .01$. 
Table 20.

*Means, standard Deviations, and Correlations for Institutionalized Socialization and Network Characteristics*

| Variable                  | M   | SD  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Size (Members identified) | 6.64| 3.03|     |     |     |     |     |     |     |     |     |     |     |
| Size (# connections)      | 12.9| 18.9| .47*|     |     |     |     |     |     |     |     |     |     |
| Communication Frequency   | 6.70| 1.25| .05 | -.11|     |     |     |     |     |     |     |     |     |
| Quality of relationships  | 4.27| 0.64| .04 | -.07| .45*|     |     |     |     |     |     |     |     |
| Status                    | 2.30| 2.09| .34*| .25*| .17*| -.04|     |     |     |     |     |     |     |
| Collective/Individual     | 3.25| 0.90| .09 | .02 | .04 | .19*| -.03|     |     |     |     |     |     |
| Formal/Informal           | 3.44| 0.63| .01 | .01 | -.03| .13 | .01 | .24*|     |     |     |     |     |
| Serial/Disjunct           | 3.40| 0.90| .08 | -.09| .15 | .38*| -.11| .20*| .18*|     |     |     |     |
Investiture/Divestiture

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Capital</td>
<td>3.31</td>
<td>1.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Capital</td>
<td>3.54</td>
<td>0.95</td>
<td>0.59**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Capital</td>
<td>3.90</td>
<td>0.87</td>
<td>0.48**</td>
<td>0.46**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collective/Individua l</td>
<td>3.25</td>
<td>0.90</td>
<td>0.44**</td>
<td>0.25**</td>
<td>0.23**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal/Informal</td>
<td>3.44</td>
<td>0.63</td>
<td>0.12</td>
<td>0.02</td>
<td>0.27**</td>
<td>0.24**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N =162. M and SD are used to represent mean and standard deviation, respectively.

* Indicates p < .05. ** indicates p < .01.
<table>
<thead>
<tr>
<th>Serial / Disjunctive</th>
<th>3.40</th>
<th>0.90</th>
<th>.00</th>
<th>-0.01</th>
<th>.21**</th>
<th>.20*</th>
<th>.18*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequential / Random</td>
<td>3.53</td>
<td>0.90</td>
<td>.33**</td>
<td>.23**</td>
<td>.30**</td>
<td>.43**</td>
<td>.46**</td>
</tr>
<tr>
<td>Investiture / Divestiture</td>
<td>3.68</td>
<td>0.79</td>
<td>.08</td>
<td>.09</td>
<td>.28**</td>
<td>.01</td>
<td>.05</td>
</tr>
<tr>
<td>Fixed / Variables</td>
<td>3.39</td>
<td>0.89</td>
<td>.13</td>
<td>.11</td>
<td>.27**</td>
<td>.33**</td>
<td>.36**</td>
</tr>
</tbody>
</table>

Note. $N = 162$. M and SD are used to represent mean and standard deviation, respectively.

* Indicates $p < .05$. ** indicates $p < .01$. 
Appendix F

Full R Script

install.packages("tidyverse")
install.packages("psych")
install.packages("finalfit")

library(tidyverse)
library(psych)
library(finalfit)

df1<-read_csv(file.choose())

##Missing Data
ff_glimpse(df1)

#Example of filter for removing people who didn't get past qualifiers
df2<-filter(df1,Q14_1>0)
names(df2)

#Attention Checks
#Q14_6 (5), Q131_6 (1), Q51_6 (5)
table(df2$Q14_6)
table(df2$Q131_6)
table(df2$Q51_6)

df2$attchk1<-ifelse(df2$Q14_6==5,0,1)
df2$attchk2<-ifelse(df2$Q131_6==1,0,1)
df2$attchk3<-ifelse(df2$Q51_6==5,0,1)
df2$total_attchk<-df2$attchk2+df2$attchk2+df2$attchk3

#To filter for perfect: filter(df, total_attchk<1)
df3<-filter(df2, total_attchk<2)

#SOCIALIZATION TACTICS

#Simple Recoding, Calculation, and Alpha Example with Individual-Collective tactics
df3$Q14_4<-6-df3$Q14_4
ind_col<-select(df3,Q14_1,Q14_2,Q14_3,Q14_4,Q14_5)
psych::alpha(ind_col)
df3$soc_indcol<-rowMeans(ind_col, na.rm=T)

#Fixed-Variable
df3$Q132_4<-6-df3$Q132_4
df3$Q132_5 <- df3$Q132_5
fix_var <- select(df3, Q132_1, Q132_2, Q132_3, Q132_4, Q132_5)
psych::alpha(fix_var)
df3$soc_fixvar <- rowMeans(fix_var, na.rm = T)

# Formal/Informal
df3$Q18_4 <- df3$Q18_4
for_inf <- select(df3, Q18_1, Q18_2, Q18_3, Q18_4, Q18_5)
psych::alpha(for_inf)
df3$soc_forlinf <- rowMeans(for_inf, na.rm = T)

for_inf <- select(df3, Q18_1, Q18_3, Q18_4, Q18_5)
psych::alpha(for_inf)
df3$soc_forlinf <- rowMeans(for_inf, na.rm = T)

# Investiture - Divestiture
df3$Q129_3 <- df3$Q129_3
df3$Q129_5 <- df3$Q129_5
inv_div <- select(df3, Q129_1, Q129_2, Q129_3, Q129_4, Q129_5)
psych::alpha(inv_div)
df3$soc_invdiv <- rowMeans(inv_div, na.rm = T)

# Sequential - Random
df3$Q130_4 <- df3$Q130_4
seq_ran <- select(df3, Q130_1, Q130_2, Q130_3, Q130_4, Q130_5)
psych::alpha(seq_ran)
df3$soc_seqran <- rowMeans(seq_ran, na.rm = T)

# Serial - Disjunctive
df3$Q131_3 <- df3$Q131_3
df3$Q131_4 <- df3$Q131_4
df3$Q131_5 <- df3$Q131_5
ser_dis <- select(df3, Q131_1, Q131_2, Q131_3, Q131_4, Q131_5)
psych::alpha(ser_dis)
df3$soc_serdis <- rowMeans(ser_dis, na.rm = T)

# THREE FACTOR

# SOC - Social
ST_Soc <- select(df3, Q131_1, Q131_2, Q131_3, Q131_4, Q131_5, Q129_1, Q129_2, Q129_3, Q129_4, Q129_5)
psych::alpha(ST_Soc)
df3$ST_Soc <- rowMeans(ST_Soc, na.rm = T)

# SOC - Content
ST_Con<- select(df3,Q132_1,Q132_2,Q132_3,Q132_4,Q132_5,Q130_1,Q130_2,Q130_3,Q130_4, Q130_5) psych::alpha(ST_Con) df3$ST_Con<-rowMeans(ST_Con, na.rm=T)

#SOC - Context
ST_Cox<-select(df3,Q18_1,Q18_3,Q18_4,Q18_5,Q14_1,Q14_2,Q14_3,Q14_4,Q14_5)
psych::alpha(ST_Cox)
df3$ST_Cox<-rowMeans(ST_Cox, na.rm=T)

ST_Coxw2<- select(df3,Q18_1,Q18_2,Q18_3,Q18_4,Q18_5,Q14_1,Q14_2,Q14_3,Q14_4,Q14_5)
psych::alpha(ST_Coxw2)
df3$ST_Coxw2<-rowMeans(ST_Coxw2, na.rm=T)

#SINGLE FACTOR

#Institutionalized - SOC
ST_INTx2<- select(df3,Q18_1,Q18_2,Q18_3,Q18_4,Q18_5,Q14_1,Q14_2,Q14_3,Q14_4,Q14_5,Q132_1,Q132_2,Q132_3,Q132_4,Q132_5,Q130_1,Q130_2,Q130_3,Q130_4,Q130_5,Q131_1,Q131_2,Q131_3,Q131_4,Q131_5,Q129_1,Q129_2,Q129_3,Q129_4,Q129_5)
psych::alpha(ST_INTx2)
df3$ST_INTx2<-rowMeans(ST_INTx2, na.rm=T)

#Institutionalized - SOC
ST_INT<- select(df3,Q18_1,Q18_2,Q18_3,Q18_4,Q18_5,Q14_1,Q14_2,Q14_3,Q14_4,Q14_5,Q132_1,Q132_2,Q132_3,Q132_4,Q132_5,Q130_1,Q130_2,Q130_3,Q130_4,Q130_5,Q131_1,Q131_2,Q131_3,Q131_4,Q131_5,Q129_1,Q129_2,Q129_3,Q129_4,Q129_5)
psych::alpha(ST_INT)
df3$ST_INT<-rowMeans(ST_INT, na.rm=T)

#SOCIALIZATION OUTCOMES

#Task Mastery
df3$Q43_3<-6 df3$Q43_3
tas_mas<- select(df3,Q43_1,Q43_2,Q43_3,Q43_4)
psych::alpha(tas_mas)
df3$task_mastery<-rowMeans(tas_mas,na.rm=T)

#Role Clarity
rol_cla<- select(df3,Q47,Q48,Q49,Q50)
psych::alpha(rol_cla)
df3$role_clarity<-rowMeans(rol_cla,na.rm=T)
#Autonomy
aut_on<-select(df3,Q145_1,Q145_2,Q145_3,Q145_4)
psych::alpha(aut_on)
df3$autonomy_soco<-rowMeans(aut_on,na.rm=T)

#Social Integration
soc_int<-select(df3,Q51_1,Q51_2,Q51_3,Q51_4,Q51_5)
psych::alpha(soc_int)
df3$social_integration<-rowMeans(soc_int,na.rm=T)

#Newcomer Satisfaction
df3$Q136_2<-6-df3$Q136_2
new_sat<-select(df3,Q136_1,Q136_2,Q136_3)
psych::alpha(new_sat)
df3$newcomer_satisfaction<-rowMeans(new_sat,na.rm=T)

#Global Embedded
df3$Q124_6<-6-df3$Q124_6
glo_emb<-select(df3,Q124_1,Q124_2,Q124_3,Q124_4,Q124_5,Q124_6,Q124_7)
psych::alpha(glo_emb)
df3$glo_embed<-rowMeans(glo_emb,na.rm=T)

#Job Embedded Fit On
OnFit_emb<-select(df3,Q126_1,Q126_2,Q126_3,Q126_4,Q126_5,Q126_6)
psych::alpha(OnFit_emb)
df3$OnFit_emb<-rowMeans(OnFit_emb,na.rm=T)

#Job Embedded Sac On
df3$Q82_4<-6-df3$Q82_4
OnSac_emb<-select(df3,Q82_1,Q82_2,Q82_3,Q82_4,Q82_5,Q82_6,Q82_7,Q82_8,Q82_9)
psych::alpha(OnSac_emb)
df3$OnSac_emb<-rowMeans(OnSac_emb,na.rm=T)

#Job Embedded Fit Off
OffFit_emb<-select(df3,Q125_1,Q125_2,Q125_3,Q125_4,Q125_5)
psych::alpha(OffFit_emb)
df3$OffFit_emb<-rowMeans(OffFit_emb,na.rm=T)

#Job Embedded Sac Off
OffSac_emb<-select(df3,Q78_1,Q78_2,Q78_3)
psych::alpha(OffSac_emb)
df3$OffSac_emb<-rowMeans(OffSac_emb,na.rm=T)

#Engagement
ENG<-select(df3,Q90_1,Q90_2,Q90_3,Q90_4,Q90_5,Q90_6,Q90_7,Q90_8,Q90_9)
psych::alpha(ENG)
df3$ENG<-rowMeans(ENG,na.rm=T)

#MAHAD
install.packages("careless")
library(careless)
?mahad
df4<-select(df3,ST_Soc,ST_Con,ST_Cox,autonomy_soco,
social_integration,task_mastery,role_clarity,
newcomer_satisfaction,glo_embed,OnFit_emb,OffFit_emb,OnSac_emb,OffSac_emb,ENG)
mahad(df4,plot=F,flag=T)
mahad<mahad(df4,plot=F,flag=T)
df3$mahad_flagged<-mahad$flagged
df3$mahad<-mahad$sd_sq
df3<-mutate(df3, id = row_number())

df3a<-filter(df3,mahad_flagged==1)%>%select(mahad,id)
df3b<-filter(df3,mahad<36)
df3<-filter(df3,mahad<36)

#Demographics
table(df3$Q154)
#Proportion Male
76/(76+55+1+1)
55/(76+55+1+1)
(76+55+1+1)
#Race
table(df3$Q2)
#1=w,2=b,3=nv,4=a,6=lx,10>multiethnic
table(df3$Q10)
(111/111+26+2+7+6+3+1+5+1)
(26/162)
(7/162)

#Age
df3$Q10[df3$Q10 == 1991] <- 32
table(df3$Q10)
mean(df3$Q10,na.rm = TRUE)
sd(df3$Q10,na.rm = TRUE)
min(df3$Q10,na.rm = TRUE)
max(df3$Q10,na.rm = TRUE)
#Start current job - 9 = 2020, 5 =2021, 6 = 2022
table(df3$Q147)
(61+48+53)
61/(61+48+53)
48/(61+48+53)
53/(61+48+53)

#Fulltime status 1 = full, 2= pt, 3= season, 4= intern

table(df3$Q108)
#Proportion Fulltime
130/(130+28+1+2)

#Education 5 = bach, 6 = graduate, 2 =HS, 3 = some coll, 4 = ass, 7 pf not

table(df3$Q4)

###CFA Examples
#Q14 - Ind-Col
#Q18 - Inf-For
#Q129 - INV-DIV
#Q130 - SEQ-RAN
#Q131 - SER-DIS
#Q132 - FIX-VAR

df_st<-select(df3,starts_with("Q14_."),
    starts_with("Q18_."),
    starts_with("Q129_."),
    starts_with("Q130_."),
    starts_with("Q131_."),
    starts_with("Q132_."))
names(df_st)
df_st<-select(df_st,-Q14_6,-Q131_6)

library(lavaan)

#Just starting. Note it jumps from Q14_3 to Q32_5
#All needs listed
single_factor<-'SF =~
Q14_1+Q14_2+Q14_3+Q14_4+Q14_5+Q18_1+Q18_2+Q18_3+Q18_4+Q18_5+Q129_1+Q129_2+Q129_3+Q129_4+Q129_5
+Q130_1+Q130_2+Q130_3+Q130_4+Q130_5
+Q131_1+Q131_2+Q131_3+Q131_4+Q131_5
+Q132_1+Q132_2+Q132_3+Q132_4+Q132_5'
fit1<-cfa(single_factor,data=df_st)
summary(fit1, fit.measures=T)
three_factor<-'Context =~ Q14_1+Q14_2+Q14_3+Q14_4+Q14_5+Q18_1+Q18_2+Q18_3+Q18_4+Q18_5
Social =~ Q129_1+Q129_2+Q129_3+Q129_4+Q129_5+Q131_1+Q131_2+Q131_3+Q131_4+Q131_5
Content =~ Q130_1+Q130_2+Q130_3+Q130_4+Q130_5+Q132_1+Q132_2+Q132_3+Q132_4+Q132_5
'

fit3<-cfa(three_factor, data=df_st)
summary(fit3, fit.measures=T)
inspect(fit3)

#factors
factors<-'IC =~ Q14_1+Q14_2+Q14_3+Q14_4+Q14_5
IF =~ Q18_1+Q18_2+Q18_3+Q18_4+Q18_5
VD =~ Q129_1+Q129_2+Q129_3+Q129_4+Q129_5
SR =~ Q130_1+Q130_2+Q130_3+Q130_4+Q130_5
SD =~ Q131_1+Q131_2+Q131_3+Q131_4+Q131_5
FV =~ Q132_1+Q132_2+Q132_3+Q132_4+Q132_5
'

factors2<-'IC =~ Q14_1+Q14_2+Q14_3+Q14_4+Q14_5
IF =~ Q18_1+Q18_2+Q18_3+Q18_4+Q18_5
VD =~ Q129_1+Q129_2+Q129_3+Q129_4+Q129_5
SR =~ Q130_1+Q130_2+Q130_3+Q130_4+Q130_5
SD =~ Q131_1+Q131_2+Q131_3+Q131_4+Q131_5
FV =~ Q132_1+Q132_2+Q132_3+Q132_4+Q132_5
Social =~ VD+SD
Content =~ IC+IF
Context =~ SR+FV
'

fit22<-cfa(factors2, data=df_st)
summary(fit22, fit.measures=T)

bifactor<-'Context =~ Q14_1+Q14_2+Q14_3+Q14_4+Q14_5+Q18_1+Q18_2+Q18_3+Q18_4+Q18_5
Social =~ Q129_1+Q129_2+Q129_3+Q129_4+Q129_5+Q131_1+Q131_2+Q131_3+Q131_4+Q131_5
Content =~ Q130_1+Q130_2+Q130_3+Q130_4+Q130_5+Q132_1+Q132_2+Q132_3+Q132_4+Q132_5

global =~ Q14_1+Q14_2+Q14_3+Q14_4+Q14_5+Q18_1+Q18_2+Q18_3+Q18_4+Q18_5+Q129_1+Q129_2+Q129_3+Q129_4+Q129_5+Q131_1+Q131_2+Q131_3+Q131_4+Q131_5+Q130_1+Q130_2+Q130_3+Q130_4+Q130_5+Q132_1+Q132_2+Q132_3+Q132_4+Q132_5
Context ~ 0*global
Social ~ 0*global
Content ~ ~ 0*global

```
fitbi<-cfa(bifactor, data=df_st)
summary(fitbi,fit.measures=T)

fit2<-cfa(factors, data=df_st)
summary(fit2,fit.measures=T)
modificationindices(fit2,sort. =T)

anova(fit1,fit2)
anova(fit2,fit3)
anova(fit1,fit3)

#Fixing the negative variances. From summary, it was Q14_2 and Q18_1
factors_fixed<-
IC=~Q14_1+Q14_2+Q14_3+Q14_4+Q14_5
IF=~Q18_1+Q18_2+Q18_3+Q18_4+Q18_5
Q14_2~~var1*Q14_2
Q18_1~~var2*Q18_1
var1>.001
var2>.001

fit3<-cfa(factors_fixed, data=df_st)
summary(fit3,fit.measures=T)
```

#apa

#EGO
#Self report # interact with on regular basis
#Q56
str(df3$Q56)

df3$raw_network_size<-as.numeric(df3$Q56)
df3$trimmed_network<-ifelse(df3$raw_network_size>100,100,df3$raw_network_size)
table(df3$raw_network_size);table(df3$trimmed_network)

#Difference could indicate that outliers are influencing stats

#Overview
names(df3)
cor(df3[,c(264:278)],df3[,c(280:289)],use = "pairwise.complete.obs")
cor(df3[,c(264:278,280:289)],df3[,c(18:19)],use = "pairwise.complete.obs")

#Setting up for MANOVA Virtuality
df3$online_cat<ifelse(df3$Q109_1==0,0,ifelse(df3$Q109_1==100,2,1))
table(df3$online_cat)
res.man <- manova(cbind(ST_Soc,ST_Con,ST_Cox) ~ online_cat, data = df3)
summary(res.man,test = "Wilks")
summary.aov(res.man)
df3%>%select(ST_Cox,online_cat)%>%group_by(online_cat)%>%summarise(mean=mean(ST_Cox, na.rm = TRUE),std=sd(ST_Cox, na.rm = TRUE))

save(df3,file='df3.rda')

#Dominance Analyses
https://www.rdocumentation.org/packages/dominanceanalysis/versions/2.0.0

install.packages('domir')
library(domir)
dfSI<-select(df3,ST_Con,ST_Cox,ST_Soc,social_integration)
domin(social_integration~ST_Con+ST_Cox+ST_Soc,lm,data = dfSI,list("summary","r.squared"))

dfGEB<-select(df3,ST_INT,social_integration,task_mastery,autonomy_soco,role_clarity, newcomer_satisfaction,glo_embed)
domin(glo_embed~social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction+ST_INT,lm,data = dfGEB,list("summary","r.squared"))

dfNGEB<-select(df3,social_integration,task_mastery,autonomy_soco,role_clarity, newcomer_satisfaction,glo_embed)
domin(glo_embed~social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction,lm,data = dfNGEB,list("summary","r.squared"))

dfENGNjobemb<-select(df3,ST_INT,social_integration,task_mastery,autonomy_soco,role_clarity, newcomer_satisfaction,ENG)
domin(ENG~ST_INT+social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction,lm,data = dfENGNjobemb,list("summary","r.squared"))

dfENG<-select(df3,social_integration,task_mastery,autonomy_soco,role_clarity, newcomer_satisfaction,glo_embed,ENG)
domin(ENG~social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction+glo_embed,lm,data = dfENG,list("summary","r.squared"))

dfENG2<-select(df3,ST_INT,social_integration,task_mastery,autonomy_soco,role_clarity, newcomer_satisfaction,glo_embed,ENG)
domin(ENG~ST_INT+social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction+glo_embed,lm,data = dfENG2,list("summary","r.squared"))
dfENG3 <- select(df3, social_integration, task_mastery, autonomy_soco, role_clarity, newcomer_satisfaction, glo_embed, ENG)

domin(ENG ~ social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction + glo_embed, lm, data = dfENG3, list("summary", "r.squared"))

dfENG3 <- select(df3, social_integration, task_mastery, autonomy_soco, role_clarity, newcomer_satisfaction, glo_embed, ENG)

domin(ENG ~ social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction + glo_embed, lm, data = dfENG3, list("summary", "r.squared"))

# Add up to 10 people that you interact with the most.
# Q111_1 to Q111_10
names <- select(df3, starts_with("Q111_"))
10 - rowSums(is.na(names))
names[22,] # confirming above
df3$names_provided <- 10 - rowSums(is.na(names))

corr.test(df3$raw_network_size, df3$names_provided)
corr.test(df3$ST_Soc, df3$names_provided)
corr.test(df3$ST_Soc, df3$raw_network_size)
corr.test(df3$ST_Cox, df3$names_provided)
corr.test(df3$ST_Cox, df3$names_provided)
corr.test(df3$ST_INT, df3$names_provided)
corr.test(df3$social_integration, df3$names_provided)
corr.test(df3$social_integration, df3$raw_network_size)
corr.test(df3$social_integration, df3$trimmed_network)
corr.test(df3$autonomy_soco, df3$names_provided)
corr.test(df3$autonomy_soco, df3$raw_network_size)
corr.test(df3$autonomy_soco, df3$trimmed_network)
corr.test(df3$role_clarity, df3$names_provided)
corr.test(df3$role_clarity, df3$raw_network_size)
corr.test(df3$role_clarity, df3$trimmed_network)
corr.test(df3$task_mastery, df3$names_provided)
corr.test(df3$task_mastery, df3$raw_network_size)
corr.test(df3$task_mastery, df3$trimmed_network)
corr.test(df3$newcomer_satisfaction, df3$names_provided)
corr.test(df3$newcomer_satisfaction, df3$raw_network_size)
corr.test(df3$newcomer_satisfaction, df3$trimmed_network)

corr.test(df3$OnFit_emb, df3$names_provided)
corr.test(df3$OnFit_emb, df3$raw_network_size)
corr.test(df3$OnFit_emb, df3$trimmed_network)

corr.test(df3$OnSac_emb, df3$names_provided)
corr.test(df3$OnSac_emb, df3$raw_network_size)
corr.test(df3$OnSac_emb, df3$trimmed_network)

corr.test(df3$OffSac_emb, df3$names_provided)
corr.test(df3$OffSac_emb, df3$raw_network_size)
corr.test(df3$OffSac_emb, df3$trimmed_network)

corr.test(df3$OffFit_emb, df3$names_provided)
corr.test(df3$OffFit_emb, df3$raw_network_size)
corr.test(df3$OffFit_emb, df3$trimmed_network)

corr.test(df3$glo_embed, df3$names_provided)
corr.test(df3$glo_embed, df3$raw_network_size)
corr.test(df3$glo_embed, df3$trimmed_network)

corr.test(df3$ENG, df3$names_provided)
corr.test(df3$ENG, df3$raw_network_size)
corr.test(df3$ENG, df3$trimmed_network)

# Frequency of Communication
# Q112_1 to Q112_10; Note items are rows - where did that person fall
comm <- select(df3, starts_with("Q112_"))
df3$ego_comfreq <- rowMeans(comm, na.rm = T)

corr.test(df3$ST_Soc, df3$ego_comfreq)
corr.test(df3$ST_Con, df3$ego_comfreq)
corr.test(df3$ST_Cox, df3$ego_comfreq)
corr.test(df3$social_integration, df3$ego_comfreq)
corr.test(df3$autonomy_soco, df3$ego_comfreq)
corr.test(df3$role_clarity,df3$ego_comfreq)
corr.test(df3$task_mastery,df3$ego_comfreq)
corr.test(df3$newcomer_satisfaction,df3$ego_comfreq)
corr.test(df3$OnFit_emb,df3$ego_comfreq)
corr.test(df3$OnSac_emb,df3$ego_comfreq)
corr.test(df3$OffSac_emb,df3$ego_comfreq)
corr.test(df3$OffFit_emb,df3$ego_comfreq)
corr.test(df3$glo_embed,df3$ego_comfreq)
corr.test(df3$ENG,df3$ego_comfreq)

#Quality of relationship
#Q146
qualrel<-select(df3, starts_with("Q146_"))
df3$ego_qualrelate<-rowMeans(qualrel, na.rm=T)
corr.test(df3$ST_Soc,df3$ego_qualrelate)
corr.test(df3$ST_Con,df3$ego_qualrelate)
corr.test(df3$ST_Cox,df3$ego_qualrelate)
corr.test(df3$social_integration,df3$ego_qualrelate)
corr.test(df3$autonomy_soco,df3$ego_qualrelate)
corr.test(df3$role_clarity,df3$ego_qualrelate)
corr.test(df3$task_mastery,df3$ego_qualrelate)
corr.test(df3$newcomer_satisfaction,df3$ego_qualrelate)
corr.test(df3$OnFit_emb,df3$ego_qualrelate)
corr.test(df3$OnSac_emb,df3$ego_qualrelate)
corr.test(df3$OffSac_emb,df3$ego_qualrelate)
corr.test(df3$OffFit_emb,df3$ego_qualrelate)
corr.test(df3$glo_embed,df3$ego_qualrelate)
corr.test(df3$ENG,df3$ego_qualrelate)

# Involved on onboard
# Q113
invonb <- select(df3, starts_with("Q113_"))
df3$ego_onboarded <- rowMeans(invonb, na.rm = T)
corr.test(df3$ST_Soc, df3$ego_onboarded)
corr.test(df3$ST_Con, df3$ego_onboarded)
corr.test(df3$ST_Cox, df3$ego_onboarded)
corr.test(df3$social_integration, df3$ego_onboarded)
corr.test(df3$autonomy_soco, df3$ego_onboarded)
corr.test(df3$role_clarity, df3$ego_onboarded)
corr.test(df3$task_mastery, df3$ego_onboarded)
corr.test(df3$newcomer_satisfaction, df3$ego_onboarded)
corr.test(df3$OnFit_emb, df3$ego_onboarded)
corr.test(df3$OnSac_emb, df3$ego_onboarded)
corr.test(df3$OffSac_emb, df3$ego_onboarded)
corr.test(df3$OffFit_emb, df3$ego_onboarded)
corr.test(df3$glo_embed, df3$ego_onboarded)
corr.test(df3$ENG, df3$ego_onboarded)

# Relationship (subordinate - director)
# Q114
ego_relations <- select(df3, starts_with("Q114_"))
df3$ego_num_man <- rowSums(ego_relations > 3, na.rm = T)
corr.test(df3$ST_Soc, df3$ego_num_man)
corr.test(df3$ST_Con, df3$ego_num_man)

corr.test(df3$ST_Cox, df3$ego_num_man)

corr.test(df3$social_integration, df3$ego_num_man)

corr.test(df3$autonomy_soco, df3$ego_num_man)

corr.test(df3$role_clarity, df3$ego_num_man)

corr.test(df3$task_mastery, df3$ego_num_man)

corr.test(df3$newcomer_satisfaction, df3$ego_num_man)

corr.test(df3$OnFit_emb, df3$ego_num_man)

corr.test(df3$OnSac_emb, df3$ego_num_man)

corr.test(df3$OffSac_emb, df3$ego_num_man)

corr.test(df3$OffFit_emb, df3$ego_num_man)

corr.test(df3$glo_embed, df3$ego_num_man)

corr.test(df3$ENG, df3$ego_num_man)

# Leaders
# Q115 - just an example below
formal_leaders <- select(df3, starts_with("Q115_"))
df3$ego_formallead <- rowSums(formal_leaders == 1, na.rm = T)
df3$ego_alllead <- rowSums(formal_leaders < 3, na.rm = T)
df3$ego_mentors <- rowSums(formal_leaders == 4, na.rm = T)

# Human Capital - Q142
HC <- select(df3, starts_with("Q142_"))
df3$ego_HC <- rowMeans(HC, na.rm = T)

corr.test(df3$ST_Soc, df3$ego_HC)

corr.test(df3$ST_Con, df3$ego_HC)

corr.test(df3$ST_Cox, df3$ego_HC)

corr.test(df3$social_integration, df3$ego_HC)

corr.test(df3$task_mastery, df3$ego_HC)
corr.test(df3$autonomy_soco,df3$ego_HC)
corr.test(df3$role_clarity,df3$ego_HC)
corr.test(df3$newcomer_satisfaction,df3$ego_HC)
corr.test(df3$OnFit_emb,df3$ego_HC)
corr.test(df3$OnSac_emb,df3$ego_HC)
corr.test(df3$OffSac_emb,df3$ego_HC)
corr.test(df3$OffFit_emb,df3$ego_HC)
corr.test(df3$glo_embed,df3$ego_HC)
corr.test(df3$ENG,df3$ego_HC)

#Social Capital - Q143
SC<-select(df3,starts_with("Q143_"))
df3$ego_SC<-rowMeans(SC,na.rm=T)
corr.test(df3$social_integration,df3$ego_SC)
corr.test(df3$task_mastery,df3$ego_SC)
corr.test(df3$autonomy_soco,df3$ego_SC)
corr.test(df3$role_clarity,df3$ego_SC)
corr.test(df3$newcomer_satisfaction,df3$ego_SC)
corr.test(df3$OnFit_emb,df3$ego_SC)
corr.test(df3$OnSac_emb,df3$ego_SC)
corr.test(df3$OffSac_emb,df3$ego_SC)
corr.test(df3$OffFit_emb,df3$ego_SC)
corr.test(df3$glo_embed,df3$ego_SC)
corr.test(df3$ENG,df3$ego_SC)

#Org - Q144
OC<-select(df3,starts_with("Q144_"))
df3$ego_OC<-rowMeans(OC,na.rm=T)
corr.test(df3$social_integration,df3$ego_OC)
corr.test(df3$task_mastery, df3$ego_OC)
corr.test(df3$autonomy_soco, df3$ego_OC)
corr.test(df3$role_clarity, df3$ego_OC)
corr.test(df3$newcomer_satisfaction, df3$ego_OC)
corr.test(df3$OnFit_emb, df3$ego_OC)
corr.test(df3$OnSac_emb, df3$ego_OC)
corr.test(df3$OffSac_emb, df3$ego_OC)
corr.test(df3$OffFit_emb, df3$ego_OC)
corr.test(df3$glo_embed, df3$ego_OC)
corr.test(df3$ENG, df3$ego_OC)

#Move forward like this.

#CORRELATION & REGRESSIONS B/TW SOCIALIZATION TACTICS AND OUTCOMES

#Correlation and regression Ind vs Coll
corr.test(df3$soc_indcol, df3$social_integration)
reg1<-lm(social_integration~soc_indcol, data=df3)
summary(reg1)

corr.test(df3$soc_indcol, df3$role_clarity)
reg2<-lm(role_clarity~soc_indcol, data=df3)
summary(reg2)

corr.test(df3$soc_indcol, df3$task_mastery)
reg3<-lm(task_mastery~soc_indcol, data=df3)
summary(reg3)

corr.test(df3$soc_indcol, df3$autonomy_soco)
reg4<-lm(autonomy_soco~soc_indcol, data=df3)
summary(reg4)

corr.test(df3$soc_indcol, df3$newcomer_satisfaction)
reg5<-lm(newcomer_satisfaction~soc_indcol, data=df3)
summary(reg5)

#Correlation and regression For vs Inf
corr.test(df3$soc_forlinf, df3$social_integration)
reg6<-lm(social_integration~soc_forlinf, data=df3)  
summary(reg6)

corr.test(df3$soc_forlinf,df3$role_clarity)
reg7<-lm(role_clarity~soc_forlinf, data=df3)  
summary(reg7)

corr.test(df3$soc_forlinf,df3$task_mastery)
reg8<-lm(task_mastery~soc_forlinf, data=df3)  
summary(reg8)

corr.test(df3$soc_forlinf,df3$autonomy_soco)
reg9<-lm(autonomy_soco~soc_forlinf, data=df3)  
summary(reg9)

corr.test(df3$soc_forlinf,df3$newcomer_satisfaction)
reg10<-lm(newcomer_satisfaction~soc_forlinf, data=df3)  
summary(reg10)

#Correlation and regression Invest vs Divest

corr.test(df3$soc_invdiv,df3$social_integration)
reg11<-lm(social_integration~soc_invdiv, data=df3)  
summary(reg11)

corr.test(df3$soc_invdiv,df3$role_clarity)
reg12<-lm(role_clarity~soc_invdiv, data=df3)  
summary(reg12)

corr.test(df3$soc_invdiv,df3$task_mastery)
reg13<-lm(task_mastery~soc_invdiv, data=df3)  
summary(reg13)

corr.test(df3$soc_invdiv,df3$autonomy_soco)
reg14<-lm(autonomy_soco~soc_invdiv, data=df3)  
summary(reg14)

corr.test(df3$soc_invdiv,df3$newcomer_satisfaction)
reg15<-lm(newcomer_satisfaction~soc_invdiv, data=df3)  
summary(reg15)

#Correlation and regression Sequential vs Random

corr.test(df3$soc_seqran,df3$social_integration)
reg16<-lm(social_integration~soc_seqran, data=df3)  
summary(reg16)

corr.test(df3$soc_seqran,df3$role_clarity)
reg17<-lm(role_clarity~soc_seqran, data=df3)
summary(reg17)

corr.test(df3$soc_seqran,df3$task_mastery)
reg18<-lm(task_mastery~soc_seqran, data=df3)
summary(reg18)

corr.test(df3$soc_seqran,df3$autonomy_soco)
reg19<-lm(autonomy_soco~soc_seqran, data=df3)
summary(reg19)

corr.test(df3$soc_seqran,df3$newcomer_satisfaction)
reg20<-lm(newcomer_satisfaction~soc_seqran, data=df3)
summary(reg20)

#Correlation and regression Serial vs Disjunctive
corr.test(df3$soc_serdis,df3$social_integration)
reg21<-lm(social_integration~soc_serdis, data=df3)
summary(reg21)

corr.test(df3$soc_serdis,df3$role_clarity)
reg22<-lm(role_clarity~soc_serdis, data=df3)
summary(reg22)

corr.test(df3$soc_serdis,df3$task_mastery)
reg23<-lm(task_mastery~soc_serdis, data=df3)
summary(reg23)

corr.test(df3$soc_serdis,df3$autonomy_soco)
reg24<-lm(autonomy_soco~soc_serdis, data=df3)
summary(reg24)

corr.test(df3$soc_serdis,df3$newcomer_satisfaction)
reg25<-lm(newcomer_satisfaction~soc_serdis, data=df3)
summary(reg25)

#Correlation and regression Fixed vs Variable
corr.test(df3$soc_fixvar,df3$social_integration)
reg26<-lm(social_integration~soc_fixvar, data=df3)
summary(reg26)

corr.test(df3$soc_fixvar,df3$role_clarity)
reg27<-lm(role_clarity~soc_fixvar, data=df3)
summary(reg27)
corr.test(df3$soc_fixvar,df3$task_mastery)
reg28<-lm(task_mastery~soc_fixvar, data=df3)
summary(reg28)

corr.test(df3$soc_fixvar,df3$autonomy_soco)
reg29<-lm(autonomy_soco~soc_fixvar, data=df3)
summary(reg29)

corr.test(df3$soc_fixvar,df3$newcomer_satisfaction)
reg30<-lm(newcomer_satisfaction~soc_fixvar, data=df3)
summary(reg30)

#Correlation and regression Social Tactics
corr.test(df3$ST_Soc,df3$social_integration)
reg31<-lm(social_integration~ST_Soc, data=df3)
summary(reg31)

corr.test(df3$ST_Soc,df3$role_clarity)
reg32<-lm(role_clarity~ST_Soc, data=df3)
summary(reg32)

corr.test(df3$ST_Soc,df3$task_mastery)
reg33<-lm(task_mastery~ST_Soc, data=df3)
summary(reg33)

corr.test(df3$ST_Soc,df3$autonomy_soco)
reg34<-lm(autonomy_soco~ST_Soc, data=df3)
summary(reg34)

corr.test(df3$ST_Soc,df3$newcomer_satisfaction)
reg35<-lm(newcomer_satisfaction~ST_Soc, data=df3)
summary(reg35)

#Correlation and regression Content Tactics
corr.test(df3$ST_Con,df3$social_integration)
reg36<-lm(social_integration~ST_Con, data=df3)
summary(reg36)

corr.test(df3$ST_Con,df3$role_clarity)
reg37<-lm(role_clarity~ST_Con, data=df3)
summary(reg37)

corr.test(df3$ST_Con,df3$task_mastery)
reg38<-lm(task_mastery~ST_Con, data=df3)
summary(reg38)
corr.test(df3$ST_Con, df3$autonomy_soco)
reg39 <- lm(autonomy_soco ~ ST_Con, data=df3)
summary(reg39)

corr.test(df3$ST_Con, df3$newcomer_satisfaction)
reg40 <- lm(newcomer_satisfaction ~ ST_Con, data=df3)
summary(reg40)

# Correlation and regression Context Tactics

corr.test(df3$ST_Cox, df3$social_integration)
reg41 <- lm(social_integration ~ ST_Cox, data=df3)
summary(reg41)

corr.test(df3$ST_Cox, df3$role_clarity)
reg42 <- lm(role_clarity ~ ST_Cox, data=df3)
summary(reg42)

corr.test(df3$ST_Cox, df3$task_mastery)
reg43 <- lm(task_mastery ~ ST_Cox, data=df3)
summary(reg43)

corr.test(df3$ST_Cox, df3$autonomy_soco)
reg44 <- lm(autonomy_soco ~ ST_Cox, data=df3)
summary(reg44)

corr.test(df3$ST_Cox, df3$newcomer_satisfaction)
reg45 <- lm(newcomer_satisfaction ~ ST_Cox, data=df3)
summary(reg45)

# Correlation and regression Institutionalized Tactics

corr.test(df3$ST_INT, df3$social_integration)
reg46 <- lm(social_integration ~ ST_INT, data=df3)
summary(reg46)

corr.test(df3$ST_INT, df3$role_clarity)
reg47 <- lm(role_clarity ~ ST_INT, data=df3)
summary(reg47)

corr.test(df3$ST_INT, df3$task_mastery)
reg48 <- lm(task_mastery ~ ST_INT, data=df3)
summary(reg48)

corr.test(df3$ST_INT, df3$autonomy_soco)
reg49 <- lm(autonomy_soco ~ ST_INT, data=df3)
summary(reg49)
corr.test(df3$ST_INT, df3$newcomer_satisfaction)
reg50 <- lm(newcomer_satisfaction ~ ST_INT, data=df3)
summary(reg50)

# hypothesis 5 Satisfaction and other outcomes
corr.test(df3$social_integration, df3$newcomer_satisfaction)
corr.test(df3$autonomy_soco, df3$newcomer_satisfaction)
corr.test(df3$task_mastery, df3$newcomer_satisfaction)
corr.test(df3$role_clarity, df3$newcomer_satisfaction)

# APA Table Corr 1
library(apaTables)
?apa.cor.table
# Appendix correlation 6-factors
corrTable1 <- select(df3, soc_indcol, soc_forlfinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable2 <- select(df3, social_integration, task_mastery, autonomy_soco, role_clarity, newcomer_satisfaction, soc_indcol, soc_forlfinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable3 <- select(df3, glo_embed, OnFit_emb, OffFit_emb, OnSac_emb, OffSac_emb, soc_indcol, soc_forlfinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable4 <- select(df3, ENG, soc_indcol, soc_forlfinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable5 <- select(df3, names_provided, trimmed_network, ego_comfreq, ego_qualrelate, ego_num_man, soc_indcol, soc_forlfinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable6 <- select(df3, ego_SC, ego_HC, ego_OC, soc_indcol, soc_forlfinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable12 <- select(df3, ST_INT, names_provided, trimmed_network, ego_comfreq, ego_qualrelate, ego_num_man)

# Creating table - data set to analyze and name of table to create
apa.cor.table(corrTable1, "CorrTable1.doc")
apa.cor.table(corrTable2, "CorrTable2.doc")
apa.cor.table(corrTable3, "CorrTable3.doc")
apa.cor.table(corrTable4, "CorrTable4.doc")
apa.cor.table(corrTable5, "CorrTable5.doc")
apa.cor.table(corrTable6, "CorrTable6.doc")
apa.cor.table(corrTable12, "CorrTable12.doc")

# Hypotheses 1-5
corrTable7 <- select(df3, ST_INT, ST_Soc, ST_Con, ST_Cox, social_integration, task_mastery, autonomy_soco, role_clarity, newcomer_satisfaction)
corrTable8 <- select(df3, glo_embed, ST_INT, social_integration, task_mastery, autonomy_soco, role_clarity, newcomer_satisfaction)
corrTable9 <- select(df3, ENG, glo_embed, ST_INT, social_integration, task_mastery, autonomy_soco, role_clarity, newcomer_satisfaction)
corrTable10 <- select(df3, names_provided, trimmed_network, ego_comfreq, ego_qualrelate, ego_num_main, ST_INT, 
  social_integration, task_mastery, autonomy_soco, role_clarity, 
  newcomer_satisfaction, glo_embed, ENG)
corrTable11 <- select(df3, ego_SC, ego_HC, ego_OC, ST_INT, 
  social_integration, task_mastery, autonomy_soco, role_clarity, 
  newcomer_satisfaction, glo_embed, ENG)

corrTable3 <- select(df3, glo_embed, OnFit_emb, OffFit_emb, OnSac_emb, OffSac_emb, soc_indcol, soc_forlinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable4 <- select(df3, ENG, soc_indcol, soc_forlinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
corrTable6 <- select(df3, ego_SC, ego_HC, ego_OC, soc_indcol, soc_forlinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)

#Creating table - data set to analyze and name of table to create
apa.cor.table(corrTable7, "CorrTable7.doc")
apa.cor.table(corrTable8, "CorrTable8.doc")
apa.cor.table(corrTable9, "CorrTable9.doc")
apa.cor.table(corrTable10, "CorrTable10.doc")
apa.cor.table(corrTable11, "CorrTable11.doc")

#109 and Socialization
corrTable13 <- select(df3, Q109_1, soc_forlinf, soc_serdis, soc_seqran, soc_invdiv, soc_fixvar)
apa.cor.table(corrTable13, "CorrTable13.doc")
corrTable14 <- select(df3, ST_INT, ST_Soc, ST_Con, ST_Cox, Q109_1)
apa.cor.table(corrTable14, "CorrTable14.doc")

#109 - correlations
corrTable20 <- select(df3, Q109_1, social_integration, task_mastery, 
  autonomy_soco, role_clarity, newcomer_satisfaction, 
  glo_embed, OnFit_emb, OffFit_emb, OnSac_emb, OffSac_emb, 
  ENG)
apa.cor.table(corrTable20,"CorrTable20.doc")

corrTable21<-select(df3,Q109_1,trimmed_network,names_provided,ego_qualrelate,
    ego_comfreq,ego_num_man,ego_OC,ego_SC,ego_HC)
apa.cor.table(corrTable21,"CorrTable21.doc")

corrTable22<-select(df3,ST_INT,trimmed_network,names_provided,ego_qualrelate,
    ego_comfreq,ego_num_man,ego_OC,ego_SC,ego_HC,ego_mentors,ego_alllead,ego_formallead)
apa.cor.table(corrTable22,"CorrTable22.doc")

corrTable23<-
    select(df3,ST_Soc,ST_Con,ST_Cox,trimmed_network,names_provided,ego_qualrelate,
    ego_comfreq,ego_num_man,ego_OC,ego_SC,ego_HC,ego_mentors,ego_alllead,ego_formallead)
apa.cor.table(corrTable23,"CorrTable23.doc")

#Research Question 2

#109 and Moderation
ONST<-(df3$Q109_1*df3$ST_INT)
ModerationQ109gb<-lm(glo_embed~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109gb)

ModerationQ109si<-lm(social_integration~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109si)

ModerationQ109tm<-lm(task_mastery~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109tm)

ModerationQ109au<-lm(autonomy_soco~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109au)

ModerationQ109rc<-lm(role_clarity~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109rc)

ModerationQ109ss<-lm(social_integration~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109ss)

ModerationQ109eng<-lm(ENG~ST_INT + Q109_1 + ONST, data=df3)
summary(ModerationQ109eng)

ONFoIn<-(df3$Q109_1*df3$soc_forlinf)
ModerationQ1091<-lm(glo_embed~soc_forlinf + Q109_1 + ONFoIn, data=df3)
summary(ModerationQ1091)
ONFoIn<-((df3$Q109_1*df3$soc_forlinf)
ModerationQ1092<-lm(social_integration~ST_INT + Q109_1 + ST_INT*Q109_1, data=df3)
summary(ModerationQ1092)

ModerationQ1093<-lm(autonomy_soco~soc_forlinf + Q109_1 + ONFoIn, data=df3)
summary(ModerationQ1093)

ModerationQ1094<-lm(task_mastery~soc_forlinf + Q109_1 + ONFoIn, data=df3)
summary(ModerationQ1094)

ModerationQ1095<-lm(role_clarity~soc_forlinf + Q109_1 + ONFoIn, data=df3)
summary(ModerationQ1095)

ModerationQ1092<-lm(newcomer_satisfaction~soc_forlinf + Q109_1 + ONFoIn, data=df3)
summary(ModerationQ1092)

ModerationQ1096<-lm(ENG~soc_forlinf + Q109_1 + ONFoIn, data=df3)
summary(ModerationQ1096)

#Correlation & Regression - Socialization Outcomes - Global Embeddedness
corr.test(df3$social_integration,df3$glo_embed)
reg51<-lm(glo_embed~social_integration, data=df3)
summary(reg51)

corr.test(df3$task_mastery,df3$glo_embed)
reg52<-lm(glo_embed~task_mastery, data=df3)
summary(reg52)

corr.test(df3$role_clarity,df3$glo_embed)
reg53<-lm(glo_embed~role_clarity, data=df3)
summary(reg53)

corr.test(df3$autonomy_soco,df3$glo_embed)
reg54<-lm(glo_embed~autonomy_soco, data=df3)
summary(reg54)

corr.test(df3$newcomer_satisfaction,df3$glo_embed)
reg55<-lm(glo_embed~newcomer_satisfaction, data=df3)
summary(reg55)

#Correlation & Regression - Socialization Outcomes - Embeddedness on/off
corr.test(df3$social_integration,df3$OnFit_emb)
reg56<-lm(OnFit_emb~social_integration, data=df3) summary(reg56)
corr.test(df3$social_integration,df3$OffFit_emb)
reg57<-lm(OffFit_emb~social_integration, data=df3) summary(reg57)
corr.test(df3$social_integration,df3$OnSac_emb)
reg58<-lm(OnSac_emb~social_integration, data=df3) summary(reg58)
corr.test(df3$social_integration,df3$OffSac_emb)
reg59<-lm(OffSac_emb~social_integration, data=df3) summary(reg59)
corr.test(df3$task_mastery,df3$OnFit_emb)
reg60<-lm(OnFit_emb~task_mastery, data=df3) summary(reg60)
corr.test(df3$role_clarity,df3$OnFit_emb)
reg61<-lm(OnFit_emb~role_clarity, data=df3) summary(reg61)
corr.test(df3$autonomy_soco,df3$OnFit_emb)
reg62<-lm(OnFit_emb~autonomy_soco, data=df3) summary(reg62)
corr.test(df3$newcomer_satisfaction,df3$OnFit_emb)
reg63<-lm(OnFit_emb~newcomer_satisfaction, data=df3) summary(reg63)
corr.test(df3$task_mastery,df3$OnSac_emb)
reg64<-lm(OnSac_emb~task_mastery, data=df3) summary(reg64)
corr.test(df3$role_clarity,df3$OnSac_emb)
reg65<-lm(OnSac_emb~role_clarity, data=df3) summary(reg65)
corr.test(df3$autonomy_soco,df3$OnSac_emb)
reg66<-lm(OnSac_emb~autonomy_soco, data=df3) summary(reg66)
corr.test(df3$newcomer_satisfaction,df3$OnSac_emb)
reg67<-lm(OnSac_emb~newcomer_satisfaction, data=df3) summary(reg67)
corr.test(df3$task_mastery, df3$OffFit_emb)
reg68 <- lm(OffFit_emb ~ task_mastery, data=df3)
summary(reg68)

corr.test(df3$role_clarity, df3$OffFit_emb)
reg69 <- lm(OffFit_emb ~ role_clarity, data=df3)
summary(reg69)

corr.test(df3$autonomy_soco, df3$OffFit_emb)
reg70 <- lm(OffFit_emb ~ autonomy_soco, data=df3)
summary(reg70)

corr.test(df3$newcomer_satisfaction, df3$OffFit_emb)
reg71 <- lm(OffFit_emb ~ newcomer_satisfaction, data=df3)
summary(reg71)

corr.test(df3$task_mastery, df3$OffSac_emb)
reg72 <- lm(OffSac_emb ~ task_mastery, data=df3)
summary(reg72)

corr.test(df3$role_clarity, df3$OffSac_emb)
reg73 <- lm(OffSac_emb ~ role_clarity, data=df3)
summary(reg73)

corr.test(df3$autonomy_soco, df3$OffSac_emb)
reg74 <- lm(OffSac_emb ~ autonomy_soco, data=df3)
summary(reg74)

corr.test(df3$newcomer_satisfaction, df3$OffSac emb)
reg75 <- lm(OffSac_emb ~ newcomer_satisfaction, data=df3)
summary(reg75)

# Corr & Reg - Socialization Outcomes - Engagement
corr.test(df3$social_integration, df3$ENG)
reg76 <- lm(ENG ~ social_integration, data=df3)
summary(reg76)

corr.test(df3$task_mastery, df3$ENG)
reg77 <- lm(ENG ~ task_mastery, data=df3)
summary(reg77)

corr.test(df3$role_clarity, df3$ENG)
reg78 <- lm(ENG ~ role_clarity, data=df3)
summary(reg78)
corr.test(df3$autonomy_soco,df3$ENG)
reg79<-lm(ENG~autonomy_soco, data=df3)
summary(reg79)

corr.test(df3$newcomer_satisfaction,df3$ENG)
reg80<-lm(ENG~newcomer_satisfaction, data=df3)
summary(reg80)

#Corr-Reg Embeddedness & Engagement
corr.test(df3$glo_embed,df3$ENG)
reg81<-lm(ENG~glo_embed, data=df3)
summary(reg81)

corr.test(df3$OnFit_emb,df3$ENG)
reg82<-lm(ENG~OnFit_emb, data=df3)
summary(reg82)

corr.test(df3$OnSac_emb,df3$ENG)
reg83<-lm(ENG~OnSac_emb, data=df3)
summary(reg83)

corr.test(df3$OffFit_emb,df3$ENG)
reg84<-lm(ENG~OffFit_emb, data=df3)
summary(reg84)

corr.test(df3$OffSac_emb,df3$ENG)
reg85<-lm(ENG~OffSac_emb, data=df3)
summary(reg85)

#Hypothesis6
corr.test(df3$glo_embed,df3$ST_INT)
reg86<-lm(ST_INT~glo_embed, data=df3)
summary(reg86)

#Hypothesis8
#Hypothesis6
corr.test(df3$ENG,df3$ST_INT)
reg87<-lm(ST_INT~ENG, data=df3)
summary(reg87)

#Multiple Regression
fit <- lm(social_integration~soc_indcol + soc_fixvar + soc_serdis + soc_forlinf + soc_seqran + soc_invdiv, data=df3)
summary(fit)
fit2 <- lm(autonomy_soco ~ soc_indcol + soc_fixvar + soc_serdis + soc_forlinf + soc_seqran + soc_invdiv, data=df3)
summary(fit2)

fit3 <- lm(task_mastery ~ soc_indcol + soc_fixvar + soc_serdis + soc_forlinf + soc_seqran + soc_invdiv, data=df3)
summary(fit3)

fit4 <- lm(role_clarity ~ soc_indcol + soc_fixvar + soc_serdis + soc_forlinf + soc_seqran + soc_invdiv, data=df3)
summary(fit4)

fit5 <- lm(newcomer_satisfaction ~ soc_indcol + soc_fixvar + soc_serdis + soc_forlinf + soc_seqran + soc_invdiv, data=df3)
summary(fit5)

fit6 <- lm(social_integration ~ ST_Con + ST_Soc + ST_Cox, data=df3)
summary(fit6)

fit7 <- lm(autonomy_soco ~ ST_Con + ST_Soc + ST_Cox, data=df3)
summary(fit7)

fit8 <- lm(task_mastery ~ ST_Con + ST_Soc + ST_Cox, data=df3)
summary(fit8)

fit9 <- lm(role_clarity ~ ST_Con + ST_Soc + ST_Cox, data=df3)
summary(fit9)

fit10 <- lm(newcomer_satisfaction ~ ST_Con + ST_Soc + ST_Cox, data=df3)
summary(fit10)

fit11 <- lm(glo_embed ~ social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction, data=df3)
summary(fit11)

fit11b <- lm(glo_embed ~ ST_INT + social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction, data=df3)
summary(fit11b)

install.packages("lm.beta")  # Install lm.beta package
library("lm.beta")  # Load lm.beta package
lm.beta(fit11)

set.seed(1)
head(album)
apa.reg.boot.table(fit11)
apa.reg.boot.table(fit11, filename="exRegTable.doc")

apa.reg.boot.table(fit11b, filename="Hypothesis8RegTable.doc")

fit12 <- lm(OnFit_emb ~ newcomer_satisfaction + role_clarity + social_integration + task_mastery + autonomy_soco, data = df3)
summary(fit12)

fit13 <- lm(OffFit_emb ~ newcomer_satisfaction + role_clarity + social_integration + task_mastery + autonomy_soco, data = df3)
summary(fit13)

fit14 <- lm(OnSac_emb ~ newcomer_satisfaction + role_clarity + social_integration + task_mastery + autonomy_soco, data = df3)
summary(fit14)

fit15 <- lm(OffSac_emb ~ newcomer_satisfaction + role_clarity + social_integration + task_mastery + autonomy_soco, data = df3)
summary(fit15)

fit16 <- lm(ENG ~ OnFit_emb + OffFit_emb + OnSac_emb + OffSac_emb + glo_embed, data = df3)
summary(fit16)

fit17 <- lm(ENG ~ OnFit_emb + OffFit_emb + OnSac_emb + OffSac_emb, data = df3)
summary(fit17)

fit18 <- lm(ENG ~ social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction, data = df3)
summary(fit18)
apa.reg.boot.table(fit18, filename = "RegTable.doc")

fit19 <- lm(ENG ~ social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction + glo_embed, data = df3)
summary(fit19)
fit19b <- lm(ENG ~ ST_INT + newcomer_satisfaction + glo_embed, data = df3)
summary(fit19b)
fit19c <- lm(ENG ~ ego_OC + ego_SC + ego_HC + newcomer_satisfaction + glo_embed, data = df3)
summary(fit19c)
fit19d <- lm(ENG ~ names_provided + ego_SC + ego_HC + newcomer_satisfaction + glo_embed, data = df3)
summary(fit19d)
fit19e <- lm(ENG ~ ego_SC + ego_HC + newcomer_satisfaction + glo_embed, data = df3)
summary(fit19e)
fit19f <- lm(ENG~ego_SC + ego_qualrelate + ego_HC + newcomer_satisfaction + glo_embed, data=df3)
summary(fit19f)
fit19g <- lm(ENG~ego_SC + ego_HC + newcomer_satisfaction + glo_embed, data=df3)
summary(fit19g)

dfENG55<-select(df3,ego_SC,ego_HC,newcomer_satisfaction,glo_embed,ENG)
domin(ENG~ego_SC+ego_HC+newcomer_satisfaction+glo_embed,lm,data = dfENG55,list("summary","r.squared"))

dfENG555<-select(df3,ego_SC,ego_HC,glo_embed,newcomer_satisfaction,ENG)
domin(ENG~ego_SC+ego_HC+newcomer_satisfaction+glo_embed,lm,data = dfENG555,list("summary","r.squared"))

dfENG5555<-select(df3,social_integration,task_mastery,autonomy_soco,role_clarity,glo_embed,newcomer_satisfaction,ENG)
domin(ENG~social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction+glo_embed,lm,data = dfENG5555,list("summary","r.squared"))

dfENG55555<-select(df3,ST_INT,social_integration,task_mastery,autonomy_soco,role_clarity,newcomer_satisfaction,ENG)
domin(ENG~ST_INT+social_integration+task_mastery+autonomy_soco+role_clarity+newcomer_satisfaction,lm,data = dfENG55555,list("summary","r.squared"))

dfENG555556<-select(df3,glo_embed,newcomer_satisfaction,social_integration,autonomy_soco,names_provided,ego_qualrelate,ego_OC,ego_SC,ego_HC,ENG)
domin(ENG~glo_embed+social_integration+ego_qualrelate+ego_OC+ego_SC+ego_HC+autonomy_soco+newcomer_satisfaction+names_provided,lm,data = dfENG555556,list("summary","r.squared"))

fit21 <- lm(glo_embed~ST_INT + social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction + ego_qualrelate + names_provided, data=df3)
summary(fit21)
fit21b <- lm(glo_embed~social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction + ego_qualrelate + names_provided + ego_OC + ego_SC + ego_HC, data=df3)
summary(fit21b)
fit21c <- lm(glo_embed~ST_INT + social_integration + task_mastery + autonomy_soco + role_clarity + newcomer_satisfaction + ego_qualrelate + names_provided + ego_OC + ego_SC + ego_HC, data=df3)
summary(fit21c)
fit23 <- lm(glo_embed~social_integration + task_mastery + autonomy_soco + names_provided, data=df3)
summary(fit23)

fit24 <- lm(glo_embed~newcomer_satisfaction + ego_OC + ego_SC + ego_HC + social_integration + task_mastery + autonomy_soco + names_provided, data=df3)
summary(fit24)

fit25 <- lm(glo_embed~newcomer_satisfaction + social_integration + task_mastery + autonomy_soco + names_provided, data=df3)
summary(fit25)

dfGLO555<- select(df3,glo_embed,social_integration,task_mastery,autonomy_soco,names_provided,newcomer_satisfaction)
domin(glo_embed~social_integration+task_mastery+autonomy_soco+names_provided+newcomer_satisfaction,lm,data = dfGLO555,list("summary","r.squared"))

dfGLO5555<- select(df3,glo_embed,social_integration,task_mastery,autonomy_soco,newcomer_satisfaction)
domin(glo_embed~social_integration+task_mastery+autonomy_soco+newcomer_satisfaction,lm,data = dfGLO5555,list("summary","r.squared"))

dfGLO5556<- select(df3,glo_embed,social_integration,task_mastery,autonomy_soco,names_provided,newcomer_satisfaction,ego_OC,ego_SC,ego_HC,ego_qualrelate,ego_comfreq)
domin(glo_embed~social_integration+task_mastery+autonomy_soco+names_provided+newcomer_satisfaction+ego_OC+ego_SC+ego_HC+ego_qualrelate+ego_comfreq,lm,data= dfGLO5556,list("summary","r.squared"))

#PROCESS EXAMPLE
#Make sure you run the process code first!
#Line 439 can be helpful in code

corr.test(df3$glo_embed,df3$ST_INT)
#Tactics->Outcomes->glo_embedded
process(data=df3,x="soc_indcol",y="glo_embed",m="social_integration", model=4)
process(data=df3,x="ST_INT",y="glo_embed",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="glo_embed",m="social_integration", model=4)
process(data=df3,x="ST_Cox",y="glo_embed",m="social_integration", model=4)
process(data=df3,x="ST_Con",y="glo_embed",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="glo_embed",m="autonomy_soco", model=4)
process(data=df3,x="ST_Cox",y="glo_embed",m="autonomy_soco", model=4)
process(data=df3,x="ST_Con",y="glo_embed",m="autonomy_soco", model=4)
process(data=df3,x="ST_Soc",y="glo_embed",m="task_mastery", model=4)
process(data=df3,x="ST_Cox",y="glo_embed",m="task_mastery", model=4)
process(data=df3,x="ST_Con",y="glo_embed",m="task_mastery", model=4)
process(data=df3,x="ST_Soc",y="glo_embed",m="role_clarity", model=4)
process(data=df3,x="ST_Cox",y="glo_embed",m="role_clarity", model=4)
process(data=df3,x="ST_Con",y="glo_embed",m="role_clarity", model=4)
process(data=df3,x="ST_Soc",y="glo_embed",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Cox",y="glo_embed",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Con",y="glo_embed",m="newcomer_satisfaction", model=4)

#Tactics->Outcomes->embedded (On/Off, Fit/Sacrifice)
process(data=df3,x="ST_INT",y="OnFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OnFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Cox",y="OnFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Con",y="OnFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OnFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Cox",y="OnFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Con",y="OnFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Soc",y="OnFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Cox",y="OnFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Con",y="OnFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Soc",y="OnFit_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Cox",y="OnFit_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Con",y="OnFit_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Soc",y="OnFit_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Cox",y="OnFit_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Con",y="OnFit_emb",m="newcomer_satisfaction", model=4)

process(data=df3,x="ST_INT",y="OffFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OffFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Cox",y="OffFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Con",y="OffFit_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OffFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Cox",y="OffFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Con",y="OffFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Soc",y="OffFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Cox",y="OffFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Con",y="OffFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Soc",y="OffFit_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Cox",y="OffFit_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Con",y="OffFit_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Soc",y="OffFit_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Cox",y="OffFit_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_INT",y="OffFit_emb",m="task_mastery", model=4)
process(data=df3,x="ST_INT",y="OffFit_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_INT",y="OffSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OnSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Cox",y="OnSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Con",y="OnSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OnSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Cox",y="OnSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Con",y="OnSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Soc",y="OnSac_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Cox",y="OnSac_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Con",y="OnSac_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Soc",y="OnSac_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Cox",y="OnSac_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Con",y="OnSac_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Soc",y="OnSac_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Cox",y="OnSac_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_INT",y="OnSac_emb",m="task_mastery", model=4)
process(data=df3,x="ST_INT",y="OnSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_INT",y="OffSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OffSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Cox",y="OffSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Con",y="OffSac_emb",m="social_integration", model=4)
process(data=df3,x="ST_Soc",y="OffSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Cox",y="OffSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Con",y="OffSac_emb",m="autonomy_soco", model=4)
process(data=df3,x="ST_Cox",y="OffSac_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Con",y="OffSac_emb",m="task_mastery", model=4)
process(data=df3,x="ST_Soc",y="OffSac_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Cox",y="OffSac_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Con",y="OffSac_emb",m="role_clarity", model=4)
process(data=df3,x="ST_Soc",y="OffSac_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Cox",y="OffSac_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Con",y="OffSac_emb",m="newcomer_satisfaction", model=4)
process(data=df3,x="ST_Soc",y="OffSac_emb",m="autonomy_soco", model=4)

#Socialization approaches - emb - eng
process(data=df3,x="ST_INT",y="ENG",m="glo_embed", model=4)

#Outcomes - Emb - ENG
process(data=df3,x="social_integration",y="ENG",m="glo_embed", model=4)
process(data=df3,x="social_integration",y="ENG",m="OnFit_emb", model=4)
process(data=df3,x="social_integration",y="ENG",m="OffFit_emb", model=4)
process(data=df3,x="social_integration",y="ENG",m="OnSac_emb", model=4)
process(data=df3,x="social_integration",y="ENG",m="OffSac_emb", model=4)

#Autonomy/x.
process(data=df3,x="autonomy_soco",y="ENG",m="glo_embed", model=4)
process(data=df3,x="autonomy_soco",y="ENG",m="OnFit_emb", model=4)
process(data=df3,x="autonomy_soco",y="ENG",m="OffFit_emb", model=4)
process(data=df3,x="autonomy_soco",y="ENG",m="OnSac_emb", model=4)
process(data=df3,x="autonomy_soco",y="ENG",m="OffSac_emb", model=4)

process(data=df3,x="task_mastery",y="ENG",m="glo_embed", model=4)
process(data=df3,x="task_mastery",y="ENG",m="OnFit_emb", model=4)
process(data=df3,x="task_mastery",y="ENG",m="OffFit_emb", model=4)
process(data=df3,x="task_mastery",y="ENG",m="OnSac_emb", model=4)
process(data=df3,x="task_mastery",y="ENG",m="OffSac_emb", model=4)

process(data=df3,x="role_clarity",y="ENG",m="glo_embed", model=4)
process(data=df3,x="role_clarity",y="ENG",m="OnFit_emb", model=4)
process(data=df3,x="role_clarity",y="ENG",m="OffFit_emb", model=4)
process(data=df3,x="role_clarity",y="ENG",m="OnSac_emb", model=4)
process(data=df3,x="role_clarity",y="ENG",m="OffSac_emb", model=4)

process(data=df3,x="newcomer_satisfaction",y="ENG",m="glo_embed", model=4)
process(data=df3,x="newcomer_satisfaction",y="ENG",m="OnFit_emb", model=4)
process(data=df3,x="newcomer_satisfaction",y="ENG",m="OffFit_emb", model=4)
process(data=df3,x="newcomer_satisfaction",y="ENG",m="OnSac_emb", model=4)
process(data=df3,x="newcomer_satisfaction",y="ENG",m="OffSac_emb", model=4)
# Other Analyses

process(data=df3, x="ST_INT", y="role_clarity", m="newcomer_satisfaction", model=4)
process(data=df3, x="ST_INT", y="social_integration", m="newcomer_satisfaction", model=4)
process(data=df3, x="ST_INT", y="task_mastery", m="newcomer_satisfaction", model=4)
process(data=df3, x="ST_INT", y="autonomy_soco", m="newcomer_satisfaction", model=4)

process(data=df3, x="newcomer_satisfaction", y="glo_embed", m="task_mastery", model=4)
process(data=df3, x="newcomer_satisfaction", y="glo_embed", m="autonomy_soco", model=4)
process(data=df3, x="newcomer_satisfaction", y="glo_embed", m="role_clarity", model=4)
process(data=df3, x="newcomer_satisfaction", y="glo_embed", m="social_integration", model=4)

process(data=df3, x="ST_INT", y="ENG", m="social_integration", model=4)
process(data=df3, x="ST_INT", y="ENG", m="task_mastery", model=4)
process(data=df3, x="ST_INT", y="ENG", m="autonomy_soco", model=4)
process(data=df3, x="ST_INT", y="ENG", m="role_clarity", model=4)
process(data=df3, x="ST_INT", y="ENG", m="newcomer_satisfaction", model=4)