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The relationship between virtuality, extraversion and organizational socialization

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Abstract

The purpose of this study is to understand how one can incorporate virtual work in the organizational socialization that finds place when onboarding new employees, while still taking individual differences into consideration. More specifically, the aim of this study is to understand how individual differences may moderate the relationship between socialization tactics and newcomer proactive behaviors, and the variations that occur when socialization is virtual. This is important because several organizations are seeing benefits from virtual work in the aftermath of the COVID-19 pandemic and are evaluating what parts of the virtual work to bring into the post-pandemic socialization processes. Responses were gathered from 89 newly graduated students who are part of graduate or trainee programs, by a survey based cross-sectional research design. Mainly, the four factors socialization tactics, degree of extraversion, newcomer proactive behaviors and degree of virtuality were measured. The findings suggest firstly, that the relationship between socialization tactics and the proactive behavior supervisor relationship building is positively moderated by lower degrees of extraversion. While secondly, the findings indicate virtuality and general socialization are negatively related. Both of these findings suggest practical and theoretical implications in terms of how adjustment should be made during organizational socialization in terms of context and individual differences.

Keywords: organizational socialization, individual differences, graduate programs, virtual work, e-socialization, newcomer proactive behaviors, socialization tactics.

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1.0 Introduction

When starting a new job, most newcomers want to learn the ropes quickly. Onboarding ensures fit in an organization, where the social knowledge is learned through organizational socialization (Bauer et al., 2007; Kammeyer-Mueller et al., 2013; Van Maanen and Schein, 1977). Van Maanen and Schein (1977) described organizational socialization as the newcomers' entry into the organizational culture and being a process where both the organization and the newcomer play an active role. When successful, socialization enables adjustment and social support, as well as numerous other positive job outcomes and improved firm performance. Traditionally, organizational socialization has been a process characterized by social interactions in a physical environment, but during the COVID-19 pandemic many organizations were forced to rethink their normal onboarding and socialization processes. The severe restrictions in many parts of the world hindered physical meetings, and the use of digital tools became more important in several aspects of organizational life. Before the pandemic, the use of digital solutions had been of interest for organizations, partly due to the growing need of international collaboration and expertise only available outside the home country. The restrictions that followed with the pandemic likely accelerated this development substantially, as there were few alternatives to keep organizational life going.

Organizations have now started to see several benefits of virtual work, indicating that this trend will continue to stay relevant even after the pandemic is over. Many organizations are evaluating what parts of the virtual aspects to bring into the post-pandemic socialization processes. One important incentive for this is efficiency, where virtual socialization, if done successfully, may save onboarding costs. But perhaps more importantly, the traditional socialization processes may not suit all newcomers. As individual differences, such as personality, affect many parts of our everyday work-life, e.g. development, retention and leadership, it should also affect how we adjust socially when coming into a new organization. According to Kammeyer-Mueller and colleagues (2011), "[...] organizations can expect that extraverted newcomers will take steps to fit in more readily than those who are lower in extraversion" (p. 234). However, organizations cannot, or perhaps should not, aim to primarily hire newcomers with similar individual predispositions. Previous studies have found homogenous groups of newcomers in

terms of extraversion to be less efficient when working in teams, which should be taken into consideration in recruitment processes (Mohammed & Angell, 2004 in Son & Ok, 2019). If organizations can adapt their socialization processes to better fit the newcomers' preferences and needs, it should improve the socialization and therefore the socialization outcomes for the individual as well as firm performance. Our objective for this study is to investigate how individual differences can be taken into account when developing a socialization program containing virtual aspects.

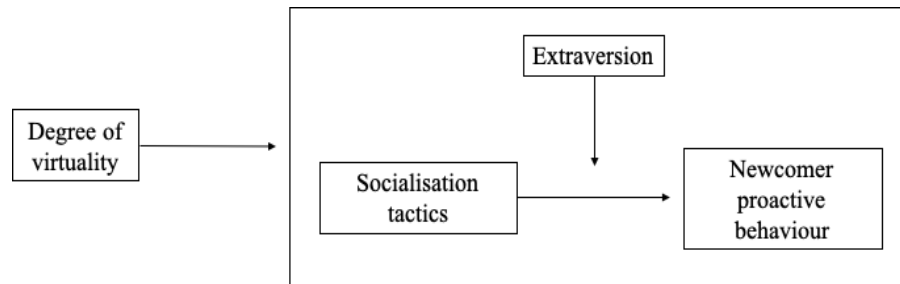
According to Arthur and Boyles (2007), the manner in which different human resource systems affect firm performance outcomes should be studied at different levels as opposed to an aggregated level. Even though socialization activities may be analyzed at an HR program level, one can also study the different outcomes of socialization through the differences in the participants' perceptions of the activities. This paper's analysis therefore belongs within HR practices, defined as "the implementation and experience of an organization's HR programs by lower-level managers and employees" (Arthur & Boyles, 2007, p. 80). In literature one finds extensive research conducted on socialization and organizations' efforts to socialize newcomers, i.e. socialization tactics (Griffin, 2000; Saks & Gruman, 2012; Van Maanen & Schein, 1977). These are known to enable newcomer adjustment by reducing tension and stress, and increases experienced social support.

Adopting an interactionist perspective, the actions of the newcomer is considered additionally important for the socialization outcomes. Seeking to regain control and make sense of their new environment, most newcomers will take some action, e.g. proactive behaviors (Kim et al., 2005). The different behaviors the newcomers engage in affects the socialization outcomes variably, and certain efforts by the organization have been shown to enable proactivity of the newcomer. If newcomer proactive behaviors lead to socialization outcomes, it is imperative to understand why the newcomer engages in these behaviors. Previous research has focused primarily on the relationship between socialization tactics and newcomer proactive behaviors, and not to an extent why this might differ among individuals. As Bauer and colleagues (1998) described it: "newcomers enter an organization with a set of dispositions, values, experiences, and skills that need to be considered if researchers are to fully understand the socialization process" (p. 170). Some efforts have been made to investigate the

antecedents of newcomer proactive behaviors, where individual differences were shown to have some effect. Both self-efficacy and the traits in the five-factor model have been studied with conflicting results (Gruman et al., 2006; Kammeyer-Mueller et al., 2011; Wanberg & Kammeyer-Mueller, 2000). As many of the socialization tactics involve social situations, which typically individuals with high levels of extraversion would show a preference for, we believe that this is an important trait to consider when investigating these relationships. As Gruman and Saks (2011) failed to prove their hypothesis that individual preference for either institutionalized or individualized socialization tactics is influenced by extraversion, we seek to investigate if another factor could influence the relationship between extraversion, socialization tactics and its outcomes namely virtuality.

In the research area of virtuality in socialization, or e-socialization, very few studies have been conducted (Gruman & Saks, 2018). It has been suggested that virtuality will affect the outcomes of socialization, as it might influence the choice of socialization tactics. On the other hand, organizations are aware of issues and may manipulate their virtual socialization to assimilate traditional socialization, meaning that virtuality should not be an issue (Fang et al., 2011). From research on virtual teams and remote work, one can find that individuals with higher degrees of extraversion might not be hindered by virtuality in seeking out social interactions, but that those less extraverted would benefit from the lower level of external stimulation (Clark et al., 2012; Nag 2021). Even as virtual onboarding and e-socialization is becoming increasingly common, and previous studies have shown how individual differences may affect newcomer proactive behavior, little to none research has been conducted to investigate the relationship between socialization, virtuality, individual differences, and newcomer proactive behaviors. The purpose of this study was therefore to better understand how individual differences may moderate the relationship between socialization tactics and newcomer proactive behaviors, and the variations that occur when socialization is virtual. This would be an important contribution to literature on e-socialization, as well as enabling organizations to adjust their socialization processes.

Figure 1. Research model



2.0 Theory

2.1 Organizational Socialization

While onboarding as a term focuses on the entire process of entering into a new job, organizational socialization is by Van Maanen and Schein (1977) defined as “the process by which an individual acquires the social knowledge and skills necessary to assume an organizational role” (p. 3). This entails learning the customs, values and behaviors in the workplace, i.e. the organizational culture (Alvesson, 2012). Learning the organizational culture through organizational socialization helps the newcomer adjust to the new environment and thus reduces the tension of being in a new situation. The social knowledge and skills create an understanding of the newcomer’s role (i.e. role clarity), which leads to higher performance and reduces stress (Bauer et al., 2007). Kammeyer-Mueller and colleagues (2013) described how co-workers and supervisors influence the organizational socialization by social support for the newcomer. Social support can be defined as “transactions with others that provide the target person (i.e., the recipient) with emotional support, affirmation of the self, appraisal of the situation, instrumental support, and information” (Vinokur & Van Ryn, 1993, p.350). When newcomers experience social support from co-workers and supervisors, there is a significant relationship with job attitudes and organizational behavior outcomes; job satisfaction, work proactivity, social integration, organizational commitment, withdrawal behaviors and intention to remain (Bauer et al., 2007; Kammeyer-Mueller et al., 2013).

Organizational socialization is seen as a process, where the actions of both the organization and the new employee are mutually interdependent in their relationship with different socialization outcomes (Reichers, 1987; Wanous, 1980, in Griffin et al., 2000). Even though Van Maanen and Schein (1977) pointed out that one could consider organizational socialization as a life-long process, it has

been argued that socialization occurs primarily during introductory events (Katz, 1980). It has been shown that it is during the first 90 days in a new organization that the newcomers' job attitudes change the most (Lance et al., 2000). One might therefore argue that this time period is the most crucial one for the success of organizational socialization. From a research perspective, organizational socialization has often been considered an outcome of either organizational tactics, or proactive behaviors initiated by the newcomer (Morrison 1993 in Gruman et al., 2006; Van Maanen & Schein, 1977). Similar to Gruman and colleagues (2006) as well as Bauer and colleagues (2007), we seek to assume the interactionist perspective, viewing organizational socialization as related to both the organizations and the newcomers' influence.

2.2 Socialization Tactics

There are several forms of organizational socialization. The efforts of the organization that influence organizational socialization which are most present in the literature are called socialization tactics (Saks & Gruman, 2012). These tactics refer to the structure of the socialization experience for the newcomer, as implemented by the organization (Van Maanen & Schein, 1977). This theory primarily builds upon Van Maanen and Scheins' (1977) model, where they identified six dimensions that each represent two sides of a pole that characterize how organizational socialization is structured. The six dimensions describe the social aspects of socialization, the content of the various information provided to newcomers and the context in which they receive the information (Jones, 1986). No matter which tactics are chosen, they will lead to events that have a great influence on the newcomer and their transition into the new role. Socialization will therefore always be represented in all of the dimensions, whether it is on purpose or not.

The first dimension, collective vs. individual, refers to how the newcomers are grouped or not during a common set of experiences (Griffin et al., 2000; Van Maanen & Schein, 1977). When the socialization process is collective, the newcomers go through the same training program in groups. This is common in graduate programs, where newcomers are socialized together. It can have an effect on how the newcomers bond together, as they share a set of experiences. Opposite, the individual socialization tactic refers to the newcomer being isolated

and thus getting an unique set of experiences (Van Maanen & Schein, 1977). The relationship between the newcomer and the person conducting the training will be important here. Formal vs. informal refers to the degree the newcomer is segregated from the rest of the organization during the socialization period (Griffin et al., 2000; Van Maanen & Schein, 1977). If segregation is high, it falls under the formal socialization. Formal socialization tactics ensure that the experiences the newcomer goes through are specifically customized for this individual. This could be through separate meetings or activities, or even longer trips away from the workplace. When informal, one finds “on the job” training where the newcomer is faced with regular tasks that do not distinguish them from the more senior employees (Van Maanen & Schein, 1977). The sequence of the steps that leads to an outcome is explained as the dimension of sequential vs. random. Sequential socialization tactics entail the steps to be fixed. These training programs will have a set of activities, where one leads to the next. When random, the steps and different outcomes are not identifiable (Griffin et al., 2000; Van Maanen & Schein, 1977). The fixed vs. variable dimension refers to the timetables of the initial socialization and integration for the newcomer. Where fixed socialization processes have a defined timeline of when the passage into a new role is completed, variable socialization processes leave the newcomer without any given timeframe (Griffin et al., 2000; Van Maanen & Schein, 1977). When fixed, the program could be set to last for a certain amount of days or weeks. Serial vs. disjunctive socialization processes are characterized by who the newcomer is socialized by. Serial refers to the use of a role model that is a veteran in the organization, while in disjunctive socialization processes the newcomer is not provided with a mentor or role model as such (Van Maanen & Schein, 1977). This means that in disjunctive processes, the newcomer must interpret and define the situation themselves (Jones, 1986). Finally, the investiture vs. divestiture dimension refers to how the identity of the newcomer is kept in the new role (Van Maanen & Schein, 1977). In processes characterized by investiture, social support from other organizational members confirms the identity of the newcomer. This could strengthen their beliefs in their own capabilities for this new role (Gruman et al., 2006; Jones, 1986; Saks & Gruman, 2012). Divestiture processes on the other hand leads to the identity of the newcomer to be reshaped, in order to assimilate the identity of the organization.

Jones (1986) built on this model by classifying the socialization tactics as either institutionalized or individualized. When the socialization tactics are institutionalized, they are structured and provide the newcomer with information, thus reducing uncertainty (Gruman et al., 2006; Saks & Gruman, 2012). Formal, collective, sequential, fixed, serial and investiture processes are seen as institutionalized and it has been suggested that these tactics enable the newcomer to understand and adjust to the organizational values and culture (Jones, 1986). Individualized socialization tactics on the other hand “[...] reflects an absence of structure such that newcomers are socialized more by default than by design” (Ashforth et al., 1997 in Cooper-Thomas & Burke, 2012, p. 14). These are represented by processes that are individual, informal, random, variable, disjunctive, and divestiture. Even though these processes may increase uncertainty, they could lead to newcomers taking a more innovative approach to their roles (Griffin et al., 2000; Jones, 1986). While Griffin and colleagues (2000) proposed that institutionalized socialization tactics could have a negative effect on several socialization outcomes, other research has shown that it has a positive effect on both proximal and distal socialization outcomes such as fit perceptions, self-efficacy and job satisfaction (Bauer et al., 2007).

2.3 Newcomer Proactive Behaviors

One interesting aspect of socialization tactics is its relationship with newcomer proactive behaviors (Gruman et al., 2006). As this paper assumes an interactionist perspective, it is imperative to consider the behaviors of the newcomers to properly explain the socialization outcomes. Newcomer proactive behavior may be defined as “changing the status quo by taking initiative in order to improve existing circumstances, or to create new ones” (Crant 2000, in Gruman et al., 2006, p. 92). It is a set of proactive behaviors that the newcomer engages in to better understand and adjust to their new environment. In organizational behavior literature, one finds a wide range of proactive behaviors (Cooper-Thomas & Burke, 2012). These differ in how they focus on the now or the future, the newcomer or its environment, or if it concerns information or social adjustment (Cooper-Thomas et al., 2012). For this study, three proactive behaviors will be studied: feedback seeking, general socialization and supervisor relationship building.

To reduce uncertainty and gain cognitive control, newcomers engage in feedback seeking by searching for information beyond what has been provided by the organization (Ashford & Black, 1996). This information typically concerns their own performance and helps them interpret their own behaviors in relation to norms. It was hypothesized by Ashford and Black (1996) that individuals with a stronger desire for control would be more likely to engage in this type of sensemaking behavior, as the feedback enables them to adjust their behavior to fit in the organization. However, their study did not find support for this, and they discussed that feedback seeking might serve a more instrumental purpose, as the information acquired about one's own performance may enable adjustment and thus result in improved performance ratings. Feedback seeking has been shown to increase socialization outcomes such as role clarity, task mastery and job performance (Saks & Ashforth, 1997; Wanberg & Kammeyer-Mueller, 2000).

General socialization and supervisor relationship building both concern the behaviors that seek to initiate social interactions (Ashford & Black, 1996). By participating in or initiating social events, the newcomer builds relationships with others in the organization, i.e. general socialization (Cooper-Thomas et al., 2012). This enables the newcomer to build a situational identity which is the meaning they attach to the self (Reichers, 1987). The identity the newcomer adopts would, according to Reichers (1987), be a reflection of others' attitudes toward the newcomer, as group membership is considered a determinant of identity. If so, the newcomer would have to engage in general socializing to understand what others' attitudes toward them are. According to Ashford & Black (1996), general socializing could facilitate the creation of social support as described previously, which in turn leads to newcomer adjustment. Fisher (1985) emphasized both the number and quality of relationships and found in her study that social support reduces stress as well as facilitates adjustment of the newcomer. As coming into a new job and socializing into a new group may cause stress, the desire for social support would be great and thus motivating the newcomer to engage in general socializing. Research has shown that general socialization can positively affect a variety of socialization outcomes, such as job performance, job satisfaction and organizational citizen behaviors (Gruman et al., 2006; Kammeyer-Mueller et al., 2011). Supervisor relationship building, also called boss relationship building, concerns when the newcomer tries to befriend and interact with their supervisor (Cooper-Thomas et al., 2012). This proactive behavior may also be motivated by

the desire for social support as well as information, as supervisors often have more access to information than others. Similar to feedback seeking, supervisor relationship building may also serve an instrumental purpose in terms of performance evaluations and thus career development. In the study of Ashford and Black (1996), the respondents who actively engaged in supervisor relationship building also received higher performance ratings. Building a strong relationship with one's supervisor could positively affect socialization outcomes related to tasks and performance, as for example task mastery (Ashford & Black, 1996; Gruman et al., 2006).

The relationship between socialization tactics and newcomer proactive behavior has been extensively discussed and researched. Griffin and colleagues (2000) argued that there would be a relationship whether the socialization tactics were institutionalized or individualized, but that this relationship would vary in its form. When institutionalized, the newcomers have opportunities to interact with others through a formal and collective setting, as well as senior role models with whom they might both socialize with and ask for feedback (Griffin et al., 2000; Gruman et al., 2006). One might argue that the institutionalized tactics enable the newcomer to engage in proactive behaviors and gain social support. When individualized, the newcomer may not have other newcomers to engage with, and the lack of a fixed timetable or an assigned mentor might increase uncertainty, essentially forcing the newcomer to behave proactively. Several studies have been conducted on this topic. Saks and Ashford (1997) showed through their study that the tactics that are collective, serial and investiture positively relate to feedback seeking, as these tactics provide opportunities for the newcomer to seek information. Gruman and colleagues (2006) presented results indicating that institutionalized tactics positively relate to all newcomer proactive behaviors.

The proactive behaviors included in this study have previously been shown to relate to both socialization tactics, and several socialization outcomes (Gruman et al., 2006). Feedback seeking, as it is related to role clarity, task mastery and job performance, enables the newcomer to understand expectations and adjust their behavior (Saks & Ashforth, 1997; Wanberg & Kammeyer-Mueller, 2000). General socializing, due to its relationship with outcomes such as performance and satisfaction, through its facilitation of social support, which should reduce stress (Fisher, 1985; Gruman et al., 2006; Kammeyer-Mueller et al., 2011). And lastly, supervisor relationship building as this type of socializing could be related

to career development through outcomes such as performance (Ashford & Black, 1996; Gruman et al., 2006). This has led us to the following hypothesis.

H1: There is a positive relationship between Socialization Tactics and (a) Newcomer Proactive Behaviors, (b) Feedback Seeking, (c) General Socializing, (d) Supervisor Relationship Building.

2.4 Extraversion (Individual Differences)

In addition to being influenced by environmental factors such as socialization tactics, newcomer proactive behaviors are influenced by insiders (Cooper-Thomas & Burke, 2012). These are people already working in the organization, such as co-workers or supervisors. The newcomers observe and interact with the insiders which could affect their proactive behaviors. Kammeyer-Mueller and colleagues (2011) found in their study that perceived similarity with the insiders could positively affect the newcomer's proactive behaviors. In addition, newcomer proactive behaviors are influenced by individual differences (Ashford & Black, 1996; Gruman et al., 2006). However, demographic differences such as age, ethnicity, and academic major have been found to be insignificant in regards to newcomer proactive behaviors (Ashforth et al, 2007; Kammeyer-Mueller et al., 2011). There have been conflicting results concerning gender, level of experience and tenure (Cooper-Thomas & Burke, 2012). From previous studies, individual differences that concern personality are considered to be influential factors on newcomer proactive behaviors. For example, Gruman and colleagues (2006) found that self-efficacy within the newcomer positively influences newcomer proactive behaviors. Personality can be described as individual characteristics that explain consistent patterns of emotions, motivations, and behaviors in a person (Cooper, 2010). The most commonly used model for explaining personality is Costa and McCrae's Five Factor Model (1976; 1992). It identifies five characteristics, or personality traits, of which an individual may display more or less. These are openness to experience, conscientiousness, extraversion, agreeableness and neuroticism, which are most commonly known as the "Big Five".

Several studies have investigated the relationship between the Big Five personality traits and newcomer proactive behaviors. Wanberg and Kammeyer-

Mueller (2000) showed that openness to experience was positively related to feedback seeking, while Kammeyer-Mueller and colleagues (2011) failed to support this. Gruman and Saks (2011) on the other hand found that agreeableness was positively related to general socializing. There seems to be an agreement that extraversion is the personality trait most related to the proactive behaviors included in H1, i.e. feedback seeking, general socializing and supervisor relationship building (Gruman & Saks, 2011; Kammeyer-Mueller et al., 2011; Wanberg & Kammeyer-Mueller, 2000). Extraversion is a trait that typically describes a person's social needs and preferences. It is measured on a continuum, meaning a person can be more or less extraverted. Individuals that score high on extraversion typically seek gratification from the outside world, which indicates why they tend to be seen as more social (Judge et al., 2002). They are active, gain energy from interacting with others and prefer environments where there is much external stimulation (Clark et al., 2012). Thus, individuals who are less extraverted may prefer their social interactions to be fewer and less intense (Bateman & Crant, 1993). As both general socialization and supervisor relationship building are behaviors that include typical social situations such as office events, and making an effort to get to know one's colleagues and supervisor, it is logical to reason that there should be a relationship with extraversion and these proactive behaviors. In addition, general socialization and supervisor relationship is likely to be connected to the desire to gain social support, as previously argued. The newcomer seeks social support to reduce stress, and Watson and Hubbard (1996) found that those more extraverted tend to seek more social support in stressful situations than those less extraverted (in Wanberg & Kammeyer-Mueller, 2000). Furthermore, those high in extraversion are typically described as more assertive, which could make them more actively seek additional feedback on their own performance (Ashford & Black, 1996; Bateman & Crant, 2013).

H2: There is a positive relationship between Extraversion and (a) Newcomer Proactive Behaviors, (b) Feedback Seeking, (c) General Socializing, (d) Supervisor Relationship Building.

2.5 The Moderating Role of Extraversion

Several other studies have found evidence for the relationship between extraversion and newcomer proactive behavior, as well as socialization tactics and newcomer proactive behavior (Cooper-Thomas & Burke, 2012). To our knowledge, no studies have investigated these relationships jointly, where extraversion serves as a moderator between socialization tactics and newcomer proactive behavior. Proactivity in itself can be described as the actions the individual takes to influence their environment (Crant, 2000). Considering the interactionist perspective, both environmental factors and individual differences should affect the newcomers behaviors and experiences during organizational socialization (Griffin et al., 2000). If the individual differences did not affect proactive behavior, the newcomers with the same type of socialization tactics should have behaved equally proactive. In addition, Gruman and Saks (2011) hypothesized that degree of extraversion would affect the newcomers preference for the two categories of socialization tactics, institutionalized vs. individualized. Their belief was that individuals who are more extraverted would prefer institutionalized socialization tactics, as this would provide an opportunity for them to interact with others. This particular study did however show that extraversion does not affect preference, and the newcomers tended to prefer institutionalized socialization tactics regardless of degree of extraversion. This further highlights the theoretical argument that individual differences should have a moderating effect, as newcomer proactive behaviors differ.

It is our belief that extraversion will moderate the relationship between socialization tactics, where lower levels of extraversion results in a stronger positive relationship. Gruman and Saks (2011) found in their study on personality traits and intention to engage in proactive behaviors that those higher in extraversion reported higher intentions for general socializing. As their study was conducted before the newcomers started in a new organization, the socialization tactics would not have influenced their intentions. Those with higher degrees of extraversion would naturally engage in the proactive behaviors as previously argued, and it is plausible that they would do so regardless of the organization's socialization tactics. If so, it could be likely that socialization tactics would be of greater need to the less extraverted newcomer to structure and create opportunities for proactive behaviors.

H3: The relationship between Socialization Tactics and (a) Newcomer Proactive Behavior, (b) Feedback seeking (c) General Socializing, (d) Supervisor Relationship Building is positively moderated by the degree Extraversion, the lower the Extraversion, the more positive the relationship.

2.6 Virtual vs. Traditional Onboarding

In organizational life today, the use of information and communication technologies (ICTs) extends to organizational socialization and is becoming increasingly common. Many organizations use tools such as video conferences or digital meetings, online presentations of company values or asynchronous learning platforms. E-Socialization can be defined as “the process of leveraging ICTs to help newcomers adjust to their new work surroundings and learn the attitudes, behaviors, and skills required to fulfill their new roles and function effectively in organizations” (Gruman & Saks, 2018, p. 112). E-Socialization therefore involves virtuality, meaning that the members of the organization communicate through technology across different boundaries, such as for example geography (Dulebohn & Hoch, 2017). How much they do so will determine the level of virtuality. Gruman and Saks (2018) suggested that the level of virtuality will influence the effects of e-socialization on various socialization outcomes. Organizational socialization that involves an extensive use of ICTs, and thus a high degree of virtuality, will involve different ways of communicating, socializing and information flows than a traditional organizational socialization. It could therefore impact the socialization outcomes. Studies suggest that in orientation programs and learning activities where newcomers are taught social and normative aspects of the organization such as goals and values that often is a tacit knowledge, ICTs may hinder the socialization (Wesson & Gogus, 2005, in Gruman & Saks, 2018). Communication through ICTs may cause issues such as delayed feedback and lack of contextual cues, making it more difficult for the newcomer to interpret the information. Studies on virtual teams have shown that this type of communication is often task-oriented rather than socially oriented, which would explain why some areas of organizational socialization, as for example relationship-building, would be weakened (Powell et al., 2004). As previously discussed, insiders affect newcomer proactive behaviors. In a virtual environment, there may be fewer opportunities for the insider and the newcomer

to connect, and the influence of insiders may be weaker than in a traditional organizational socialization. However, many organizations try to overcome this by connecting insiders and newcomers through mentoring-programs. In these programs, a higher degree of virtuality may actually enable the facilitation of mentoring, as it allows the organization to assign the newcomer a mentor from a different part of the organization as well as enable mentoring in teams (Hamilton & Scandura, 2003, in Gruman & Saks, 2018).

The virtual aspect of E-socialization will inevitably influence the socialization tactics of the organization to some extent. One concern regarding e-socialization is that it is typically individualized rather than institutionalized, as discussed previously. Gruman and Saks (2018) suggest that since some e-socialization activities are performed asynchronously and alone, where the newcomer goes through activities at their own pace, it will enhance the degree of individualization. This could affect the dimension of fixed vs. variable, as it may not involve clear deadlines for the different steps of the socialization (Griffin et al., 2000; Van Maanen & Schein, 1977). It is also more likely that the asynchronous nature of the e-socialization hinders the newcomer to be segregated from the rest of the organization, thus making the socialization more informal (Griffin et al., 2000; Van Maanen & Schein, 1977). On the other hand, several of the socialization tactics may be manipulated to be more institutionalized, as for example through the use of virtual group activities, online mentoring programs, and ensuring that there are deadlines and steps for the activities to be performed in (Fang et al., 2011). Even so, we propose that virtuality will reduce opportunities for social interactions that enable proactivity.

H4: There is a negative relationship between Virtuality and (a) Newcomer Proactive Behaviors, (b) Feedback Seeking, (c) General Socializing, (d) Supervisor Relationship Building.

2.7 Extraversion and Virtuality

As research within e-socialization and individual differences is scarce, there are some useful insights from the literature on virtual teams and remote work. When work is remote, and by extension virtual, there may be fewer social interactions throughout the workday. Clark and colleagues (2012) suggested that those who

have a higher degree of extraversion might not be hindered by not meeting co-workers face-to-face, but rather seek out other ways to interact, and therefore not be affected by the remoteness. In terms of e-socialization, this could mean that those with a higher level of extraversion will not be limited by the potentially fewer social interaction opportunities and therefore not be affected by virtuality. Rather, they will engage in online discussions and participate in digital social events more than a newcomer who is less extraverted would. It has also been suggested that those higher in extraversion are more likely to socialize with their colleagues outside of work, when working from home (Langvik et al., 2021). However, Evans and colleagues (2021) found that individuals who are less extraverted were less affected by changing to remote work in regard to performance, job satisfaction and engagement. Extraversion may predict an individual's preferred work environment where it should match the individual's comfort level of stimulation (Nag, 2021). That would mean that people who are less extraverted would prefer an environment with less external stimulation, e.g. working remote from home. For example, Geen (1984, in Nag, 2021) showed that individuals low on extraversion underperform when they are overstimulated. Similarly, Ellis (2003) found that individuals who are less extraverted may perform better in a virtual work environment, as they are exposed to less external stimulation. If so, it is not unlikely that this would also be true for e-socialization, as it could potentially reduce the stress of the stimuli level not matching their preference, enabling them to engage in newcomer proactive behaviors. Furthermore, it has been suggested that in some situations where the individual pursues certain goals, extraverted behaviors can increase even for those who are considered less extraverted (Fleeson & Gallagher, 2009; Johnson, 2022). This takes the perspective of extraversion being not only a trait but also a state, which “[...] describe how much a person manifests those traits in a given moment rather than in general” (McCabe & Fleeson, 2012, p.1499). If the goal for the newcomer is belongingness, social support or adjustment, which theoretically should be more difficult to achieve in a virtual setting, it is possible that the individuals' extraverted behaviors increase, and by extension their proactive behaviors. Thus, the degree of virtuality would not affect the less extraverted negatively, but rather positively as they would benefit from the reduction in outside stimulation. In general, we argue that those less extraverted will be more affected by virtuality than those more extraverted.

H5: Virtuality will be related to the moderation of extraversion on the relationship between socialization tactics and (a) Newcomer Proactive Behavior, (b) General Socializing, (c) Supervisor Relationship Building, where this relationship is stronger for lower degrees of extraversion

3.0 Method

3.1 Sample and Data Collection

This study follows a quantitative, survey based cross-sectional research design where data has been collected from multiple organizations and respondents. The final sample consisted of 89 recently graduated students who recently started in a new position. The sample was collected from four Norwegian organizations with more than 1,500 employees each. These organizations operate within auditing, management- or IT consultancy, and internal IT functions. For our sample we targeted individuals who had recently graduated from higher educational programs, where these were their first full-time jobs after their education. The purpose of this was to limit the effect of other factors on newcomer proactive behaviors, such as work experience and tenure. The sample was derived from a limited number of organizations, where there are a large number of newcomers starting at the same time in graduate- or trainee programs, as it would be more likely that the socialization tactics employed by the organizations would be institutionalized. We sought to include newcomers that had participated in either virtual or traditional onboarding, and as the social restrictions due to Covid-19 varied and therefore the use of ICTs, we chose to include newcomers from graduate programs starting 2019, 2020 and 2021.

Initially, the survey was administered to 720 newcomers via e-mail by a contact person at the sampled organizations, which were HR-professionals responsible for the organizations' onboarding program. As the questionnaires were administered with the help of a contact person within the sample organizations, the expectation was that it would improve the response rate since these individuals would have had substantial social capital within their respective organizations. An additional email was sent as a reminder after 7 days, and the data collection yielded 190 responses. However, 101 were incomplete responses which resulted in a final sample of 89, representing a 12% response rate.

3.2 Measurements

3.2.1 Socialization Tactics

In order to accurately measure the socialization tactics chosen by the sample organizations, a 30-item scale developed by Jones (1986) was used. The items are measured on a five-point Likert scale, ranging from “strongly disagree” to “strongly agree” to different statements, where a high score is equal to institutionalized. The measurement contains five items for each of the six dimensions of socialization tactics as defined by Van Maanen & Schein (1977). Asking to rate statements such as: “Other newcomers have been instrumental in helping me to understand my job requirements”, “There is a sense of “being in the same boat” amongst newcomers in this organization” and “My colleagues have gone out of their way to help me adjust to this organization” (Van Maanen & Schein, 1977). Three items were modified to better fit the purpose of this research. Firstly, one item measuring the dimension of collective vs. individual was altered from asking about the first six months, to the first 90 days. Secondly, one item measuring the same dimension asked if the training had been carried out apart from other newcomers. It is our belief that this would not be appropriate to use for our survey, as it could be misunderstood as purely concerning physical distance even though newcomers would interact in other ways during e-socialization. It was modified to “Most of my training has been activities without any other newcomers”, to better establish the degree of collectiveness. Thirdly, for the dimension of formal vs. informal, one item specifically asked for physical presence of other organizational members. This would not be applicable for those who participated in e-socialization, and was therefore altered to “My training activities for this job were kept separate from the work of regular organizational members” to still capture formalization. The coefficient alpha’s for the six dimensions ranged from 0.68 to 0.84 (Jones, 1986).

3.2.2 Newcomer Proactive Behaviors

The measurements for newcomer proactive behaviors we have used were primarily developed by Ashford and Black (1996). All three behaviors are measured on a five-point Likert scale, ranging from “to no extent” to “to a great extent”. Feedback seeking is measured by four items, asking if the newcomer

seeks feedback during and after a task from co-workers and unsolicited critique and opinions from the supervisor. Such as “To what extent have you sought feedback on your performance after assignments?” (Ashford and Black, 1996). For general socializing, we have used the scale with three items originally developed by Ashford and Black (1996), but one item was modified by Wanberg and Kammeyer-Mueller (2000). The original item asked if the newcomer attended office parties, but was modified because the researchers argued that organizations may differ in their propensity to organize parties. We agree, and another reason for us to not use the original item is due to the fact that even though organizations may have various social events virtuality, parties are not likely to happen during e-socialization. The item was changed to “Tried to socialize and get to know my co-workers”. For supervisor relationship building, the scale contains three items which concern the effort and time the newcomer spends to build a relationship with their supervisor. Here the newcomers were for example asked “To what extent have you tried to form a good relationship with your supervisor?” (Ashford and Black, 1996). The coefficient alpha for these three newcomer proactive behaviors were respectably 0.92, 0.81 and 0.78 (Ashford & Black, 1996; Gruman et al., 2006). We therefore believe they were reliable measures to use in our study.

3.2.3 Extraversion

For extraversion, we have utilized the 50 item Big-Five Factor Markers scale, developed by Goldberg and colleagues (2006). It contains 10 items for extraversion, five of which are positively keyed, and five negatively keyed. The items for example ask “Are you skilled in handling social situations?” and “Do you keep in the background?” (Goldberg and colleagues, 2006). As these are few items in the questionnaire compared to other scales for extraversion, such as the NEO PI-R, it will ensure that the respondents are able to keep focus and answer more accurately and may lead to more respondents finishing (Gruman & Saks, 2011). The items are measured on a five-point Likert scale, and the coefficient alpha is 0.87.

3.2.4 Virtuality

As this study focuses on the differences between traditional and virtual onboarding, there was a need to include a measure for virtuality. However, the

existing measurements primarily concern measuring virtuality in virtual teams (Schweitzer & Duxbury, 2010). Typical dimensions that are then measured are geography, time zone, culture, work practices, organization, and technology (Chudoba et al., 2005). There was then a question of relevance for most of these factors, as a socialization program may very well be virtual even if it is taking place in one time zone and participants are located in the same geographical area. We did find measurements that could have been relevant, in particular from the technology dimension (e.g. “Work with people via internet-based conferencing applications” and “Participate in real-time online discussions, such as chat or instant messaging”) and geography (e.g. “Collaborate with people you have never met face to face”). These items were measured on a six-point frequency scale, ranging from “daily” to “never”, that may have been inappropriate for us to use as onboarding typically concerns the first 90 days. Schweitzer and Duxbury (2010) viewed virtuality as a continuum, and used the number of hours respondents worked on a specific team's tasks and how many of these were performed with virtual tools. This may be a more appropriate way to measure virtuality in the onboarding process, if one disregards that activities need to be team-specific. We therefore chose to combine several of these measurements, and use the different items as an explanatory text for the phenomena of virtuality:

“Onboarding activities are activities where you get to know the organization’s culture and values, learn how to do your job, and socially interact with your new colleagues. These activities can be done by interacting in a physical environment, for example the office. They can also be done virtually, by working with people through internet-based conferencing applications (such as Zoom or Teams), pre-recorded presentations (for example video or interactive presentations), or participating in real-time online discussions (Teams Chat, Slack). Usually, one then interacts with people in different locations or offices, and sometimes with people they have never met face to face”.

This was measured by the estimation of the participant on a five-point Likert scale, ranging from “only physical” to “only virtual” asking “In your estimation, how much of the onboarding program you participated in (first 90 days) was physical or virtual?”. Even though this is not a validated measurement, we feel

confident that it gives an accurate estimation of virtuality in the different socialization processes.

3.2.5 Control Variables

To increase internal validity, we have included two control variables: age and gender. Literature suggests that age itself should not affect the relationship between socialization tactics and newcomer proactive behaviors (Ashford et al., 2007). However, it is not unlikely that work experience may have an influence on this relationship, and work experience should increase with age (Major & Kozlowski, 1997, in Cooper-Thomas & Burke, 2012). Furthermore, a younger generation that has grown up surrounded by virtual solutions and digital tools may be more comfortable with e-socialization. There have been conflicting results concerning the influence of gender on newcomer proactive behaviors, where Bauer and Green (1998) found no relationship, and Morrison and colleagues (2004) found a relationship between being a woman and engaging in feedback seeking.

3.3 Credibility

Reliability and validity are important to consider in any research. The cross-sectional research design has traditionally strong external validity as one of its main strengths, due to the large sample size, though this is dependent on the sample being truly random. Here, the sample size is rather small, thus decreasing the external validity. Stratified random sampling was used, where approximately half of the sample represents the strata that have gone through digital onboarding, and the other half have not gone through digital onboarding. Further, we have tested the internal reliability, to which degree the items measuring one factor are related, by performing a Cronbach's alpha test for all variables (Bell et al., 2018).

Finally, when it comes to ecological validity it is important to note that we, as in most cross-sectional studies, use a survey as a measurement instrument. This will influence how and in what way the results and findings can be applied to the natural social settings (Bell et al., 2018). One notable challenge is that there might be an overrepresentation of individuals high on extraversion, as conscious and unconscious bias against those lower on extraversion is not uncommon in recruitment and selection (Braathen & Sørensen, 2017). Organizations tend to

favor more extraverted candidates, especially to managerial roles. A possible explanation for this is that extraversion has been shown to have a positive relationship with a number of desired work outcomes, e.g. performance (Barrick et al., 2001). If this is present in the recruitment processes of our four sample organizations, our sample might not be representative for the population.

3.4 Ethics

Several considerations must be taken when conducting research, especially the importance of informed consent. This entails that all prospective participants are informed on the project they are participating in before they give consent to taking part in the study (Crow et al., 2006). The first page of the questionnaire included information on what participation entailed before giving consent, as well as contact information to the responsible party. What types of personal data was needed to fulfill the study was carefully considered, and it was decided that there was no need for personal data that could be traced back to the respondent. Therefore, the survey was completely anonymous. Further, the responses in the surveys were not made available for the organizations from which the data was collected, and only the finished thesis will be shared.

4.0 Results

4.1 Survey Data Analysis

The age of the respondents in our sample ranged between 24 and 41, with a mean of 27.66 and median of 27. 44.9% were women and 55.1% were men. 55% responded that they had only or mostly physical onboarding, 25.8% responded that they had virtual or mostly virtual onboarding and 19.1% responded equally physical and virtual. 5.6% having been onboarded in 2019, 32.6% in 2020 and 61.8% in 2021. When it comes to the variable extraversion, the scores range between 1.40 and 4.80. We find that more respondents lean towards a higher score on this, with a mean score of 3.44. For socialization tactics, the mean score was 3.48, indicating that these were institutionalized.

4.2 Confirmatory Factor Analysis

As we made some changes to one of the items measuring socialization tactics and changed the Likert scale from seven-point to five-point, we conducted a confirmatory factor analysis to test if our dataset would fit with the one-factor model that Jones (1986) presented, which has been used in previous research. When testing the model in R, see appendix 1, we see that the one factored model does not fit the data in our case ($\chi^2 = 1598.80$ (405), $p < 0.001$). It is not considered positive in this test that the p-value is significant (Kline, 2016). We further tested the model for approximate fit by performing an RMSEA (RMSEA = .18) which means that the approximate fit is not accepted either (Kline, 2016). We tested the robustness of the model (robust $\chi^2 = 922.40$ (405), $p < 0.001$, robust RMSEA = 0.12) and ruled out that non-normality was the issue here by conducting the Satorra-Bentler Chi-sq. test (Kline, 2016). Similar to Jones (1986), we repeated the process with both the three factored model and the six factored model to see if the data collected would better fit these models. Though the results were the same for the three factored model ($\chi^2 = 1407.99$ (402), $p < 0.01$, REMSEA = 0.70) and the six-factored ($\chi^2 = 1388.78$ (390), $p < 0.001$). As this could be due to our low sample size, we therefore chose to keep the one factor model as the Cronbach's alpha score, presented in the next section, was as high as it was, and the model has been validated in previous research.

4.3 Reliability of Measures

The measurement instruments for newcomer proactive behaviors, socialization tactics and extraversion are already proven reliable constructs. We tested the reliability of them by calculating the Cronbach's alpha for each of these measurements as we had made minor changes to some of the items. All the measurements scored within the threshold of what is considered good, which is scores higher than 0.7 (Bell et al., 2018). Feedback seeking ($\alpha = .778$), general socializing ($\alpha = .851$) and supervisor relationship building ($\alpha = .757$). We also tested the reliability of newcomer proactive behaviors as a single factor ($\alpha = .859$). As newcomer proactive behavior as a single factor showed high reliability, we will also include the single factor in the analysis moving forward. Further, we tested reliability for socialization tactics ($\alpha = .844$) and for extraversion ($\alpha = .885$). Hence, the measurements were reliable.

4.4 Descriptive Statistics

Means, standard deviations and intercorrelations for all variables are shown in Table 1. Correlations were measured using Pearson's Correlation Coefficient. We found that there is a significant correlation between socialization tactics and newcomer proactive behaviors as a single factor (.381, $p < 0.01$). The correlation between socialization tactics and feedback seeking was not significant. Both general socializing (.485, $p < 0.01$) and supervisor relationship building (.273, $p < 0.01$) had positive significant correlations. Extraversion correlated significantly with all newcomer proactive behaviors as a single factor (.439, $p < 0.01$), feedback seeking (.249, $p < 0.05$), general socialization (.423, $p < 0.01$), supervisor relationship building (.361, $p < 0.01$) and socialization tactics (.379, $p < 0.01$). The strong correlation between extraversion and general socializing was expected, as we know from theory that those high on extraversion typically seek out social situations as the ones described in the items. However, the moderately high correlation between socialization tactics and extraversion was most likely a spurious correlation, as these two variables should not have any relationship to each other. The strong correlation between newcomer proactive behavior as a single factor and extraversion was also expected from a theoretical perspective. Virtuality was only significantly correlated with general socializing (-.290, $p < 0.01$), and it is interesting that this correlation was negative. There were no significant correlations found between the control variable age and the other variables, but gender was significantly correlated with feedback seeking (.295, $p < 0.01$).

Table 1
Descriptive Statistics and Correlations for Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Socialization tactics	3.48	.43	(.844)								
2. Newcomer Proactive Behaviors	3.38	.68	.381**	(.859)							
3. Feedback seeking	3.28	.76	.145	.843**	(.778)						
4. General socializing	3.70	.99	.485**	.829**	.495**	(.851)					
5. Supervisor relationship building	3.20	.77	.273**	.692**	.526**	.421**	(.757)				
6. Extraversion	3.44	.74	.379**	.439**	.249*	.423**	.361**	(.885)			
7. Age	27.66	2.87	-.032	.139	.056	.015	.134	-.082	—		
8. Gender	.045	.50	-.018	-.207	.295**	.083	.018	.116	-.059	—	
9. Virtuality	2.70	1.17	-.001	-.152	.048	-.290**	.046	-.013	-.122	.061	—

Notes: *P<0.5, **P<0.1, ***P<0.00, Cronbach's alpha in parenthesis were measured, gender coded 1=female 0=male

4.5 Hypothesis Testing

To test the first hypothesis, the positive relationship between socialization tactics and the different newcomer proactive behaviors, we performed linear regression for all the proactive behaviors (Table 2). When examining the R-square, we found that the model explained a significant amount of the variance in newcomer proactive behaviors as a single factor ($R^2 = .145$, $p < 0.001$). For the subdimensions we found that two factors explain a significant amount of the variance, general socialization ($R^2 = .235$, $p < 0.001$) and supervisor relationship building ($R^2 = .075$, $p < 0.1$). Further, we see that socialization tactics have a positive relationship with newcomer proactive behaviors as a single factor ($\beta = .460$, $p < 0.001$). Regressed separately, the relationship was significant and positive when in regards to general socialization ($\beta = 1.109$, $p < 0.001$) and supervisor relationship building ($\beta = .483$, $p < 0.01$), but not feedback seeking (ns). This means that H1a, b and d was confirmed, but not 1c when socialization tactics are institutional.

Table 2. *Regression analysis*

Predictor	NPB	Feedback seeking	General socializing	Supervisor relationship building
Socialization tactics	.460***	.254	1.109***	.483**
R ²	.145	.021	.235	.075
F	14.748***	1.867	26.738***	7.018**
Extraversion	.390***	.260*	.572**	.381***
Virtuality	-.049	.033	-.242***	.033
R ²	.186	.064	.260	.133
F	9.73***	2.97	15.13***	6.60**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Values in table are standardized β coefficients.
NPB = Newcomer proactive behaviors as a single factor.

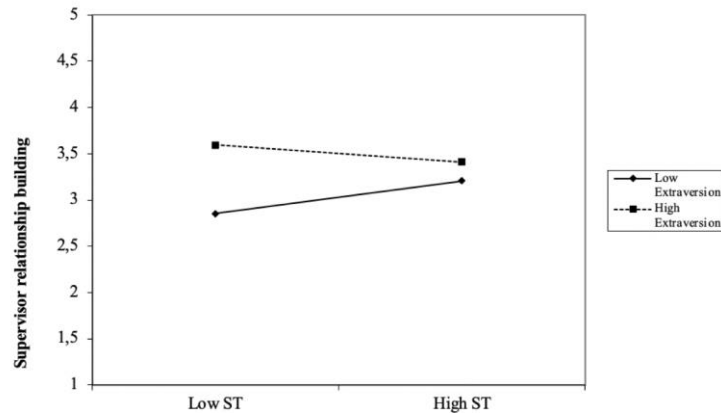
Hypothesis 2 and 4 aimed to test how extraversion and the degree of virtuality was related to the different newcomer proactive behaviors. To measure this we performed a multiple regression analysis, where we regressed both extraversion and the degree of virtuality on the proactive behaviors. As presented in Table 2, H2a, b, c and d is confirmed as there were a positive significant relationships between extraversion and newcomer proactive behavior ($\beta = .390$, $p < 0.001$), feedback seeking ($\beta = .260$, $p < 0.05$), general socializing ($\beta = .572$, $p < 0.05$) and supervisor relationship building ($\beta = .381$, $p < 0.001$). As for our fourth hypothesis, only 4c was confirmed. The results of the analysis showed a significant coefficient beta for the relationship between virtuality and general socializing ($\beta = -.242$, $p < 0.001$). This means that higher degrees of virtuality is related to a lower score of the proactive behavior of general socialization.

Hypothesis 3 concerned whether lower degrees of extraversion positively moderated the relationship between socialization tactics and the different newcomer proactive behaviors. This was done by running a multiple regression with the control variables and the direct effects of socialization tactics and extraversion (Model 1) for all the three dependent variables that showed a significant relationship with socialization tactics in hypothesis 1. Further, another multiple regression was run, where the interaction effect socialization tactics x extraversion (Model 2) was added, see Table 3. When performing the analysis we saw that the interaction term was only statistically significant for hypothesis 3d ($\beta = -.462, p < 0.5$), which predicts that the relationship between institutional socialization tactics and supervisor relationship building was negatively moderated by extraversion. The interaction term accounted for a significant variation in supervisor relationship building (R^2 change = .0194, $p < 0.001$). To test how this is affected by different levels of extraversion, we performed the moderation analysis again in Process Macro by Hayes, results presented in Figure 2. When we tested at the different levels of extraversion, we found that lower levels of extraversion, one standard deviation subtracted from the mean, positively moderated this relationship ($\beta = .456, p < 0.5$). For higher levels of extraversion, this relationship was not significant ($\beta = -.229, ns$). This means that H3d was supported.

Table 3, The moderating effect of Extraversion

	Newcomer Proactive Behaviors		General socializing		Supervisor relationship building	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Control variables						
Gender	-.209	-.205	-.122	-.123	.009	.019
Age	.044*	.044*	.018	0.18	.044	.045
Direct effects						
Socialization tactics	.404**	.341*	.877***	.881***	.281	.115
Extraversion	.297**	.279**	.375**	.375**	.332**	.331**
Interaction effects						
Socialization Tactics x Extraversion		-.173		.011		-.462*
Total R ²	.286	.298	.308	.308	.179	.194
F	8.43***	7.03***	9.35***	7.40***	4.58**	5.24***

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Values in table are standardized β coefficients. Gender coded female = 1, male = 2.

Figure 2

Hypothesis 5 predicted that when onboarding was virtual, the relationship between the socialization tactics and the proactive behaviors would be positively moderated by lower degrees of extraversion. To measure this we used the split file function in SPSS to test for the two different groups. This was done by first recoding the variable of virtuality from being scored on a five-point Likert scale, to a dichotomous variable. Mostly physical and only physical made up the physical group, group 1 (n = 49), and equally physical and virtual, mostly virtual and only virtual made for the virtual group, group 2 (n = 40). We then performed a moderation analysis as the one for Hypothesis 3. The results are presented in Table 4 and Table 5. There were no significant interaction effects on extraversion as a moderator for either of the groups. Which once again could be due to the low sample size, as when the groups were split into two, there were only 40 and 49 in each group.

Table 4. Moderation analysis when onboarding is physical

Predictor	Newcomer Proactive Behaviors		General socializing		Supervisor relationship building	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Control variables						
Gender	-.182	-.188	-.236	-.237	.090	.071
Age	.018	.020	-.022	-.022	.032	.038
Direct effects						
Socialization tactics	.330	.287	.964**	.958**	.124	-.006
Extraversion	.217	.242	.047	.044	.530**	.456*
Interaction effects						
Socialization Tactics x Extraversion		-.174		-.025		-.527
Total R ²	.157	.168	.243	.243	.195	.258
F	2.06*	1.74**	3.54*	2.77*	2.67	3.00

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Values in table are standardized β coefficients. Gender coded female = 1, male = 2.

Table 5. Moderation analysis when onboarding is virtual

Predictors	Newcomer Proactive Behaviors		General socializing		Supervisor relationship building	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Control variables						
Gender	-.265	-.243	.102	.121	-.192	-.155
Age	.018*	.091*	.053	.049	.104*	.094
Direct effects						
Socialization tactics	.480*	.428	.851**	.806**	.374	.285
Extraversion	.287*	.303*	.559***	.573**	.145	.172
Interaction effects						
Socialization Tactics \times Extraversion		-.122		-.104		-.208
Total R ²	.487	.492	.492	.494	.178	.245
F	2.06***	1.74***	8.48***	6.64***	3.31	3.90

Note. * $p < .05$, ** $p < .01$, *** $p < .001$. Values in table are standardized β coefficients. Gender coded female = 1, male = 2.

5.0 Discussion

5.1 General Discussion

In literature, there is a general consensus of there being a relationship between socialization tactics and newcomer proactive behavior. Extensive research has been conducted regarding the different outcomes of this relationship, such as job satisfaction or organizational commitment (Bauer et al., 2007; Kammeyer-Mueller et al., 2013). Therefore, the focus of this paper has not been the outcomes of socialization, but rather what other factors should be taken into consideration when discussing the relationship between the efforts of the organization and the behaviors of the newcomer. This could provide a better understanding of the relationship, essentially giving scholars and organizations the possibility of a new direction in research and the shaping of organizational socialization programs.

Previous studies have exclusively researched the relationship between socialization tactics and newcomer proactive behavior in traditional socialization programs, and some argue that virtual socialization will inevitably be individualized (Gruman & Saks, 2018). The measured high mean of the socialization tactics in our study shows these were institutionalized, whether they were virtual or traditional. This supports Fang and colleagues' (2011) notion that organizations can manipulate socialization tactics to be institutionalized, even when virtual. Therefore, our findings indicate virtuality should not hinder the newcomer from behaving proactively.

5.1.1 Socialization Tactics and Newcomer Proactive Behaviors

As suggested in our first hypothesis, the results of our analysis support our expectation of there being a positive relationship between socialization tactics and

newcomer proactive behaviors. Consistent with theory, how organizations choose to socialize their newcomers has an impact on which proactive behaviors the newcomers will engage in. Our results confirm what has been researched by others before us, namely that institutionalized socialization tactics have a relationship with newcomer proactive behavior. The analysis indicates that this relationship exists for newcomer proactive behavior as a single factor (H1a), as well as general socializing (c) and supervisor relationship building (d). The R-square for these three significant predictors were moderate to low, meaning that they do not explain all of the variance in the predictor variable. This is not surprising, as apart from environmental factors such as socialization tactics, insiders and individual differences may also play a part in explaining proactive behavior (Cooper-Thomas & Burke, 2012). As discussed in Chapter 2.3 of this study, the newcomer engages in general socialization and supervisor relationship building by initiating and participating in social interactions. They do this in order to develop their situational identity and gain social support, thus reducing the uncertainty and stress of the situation they find themselves in. Socialization tactics enable this when institutionalized, through several of its dimensions.

Theoretically, the collective dimension presents the newcomer with opportunities for social interaction and allows newcomers to share experiences, which could explain the relationship between this socialization tactic and general socializing, as it would enable the social support the newcomer desires. Similarly, when tactics are investiture, they confirm the identity of the newcomer, enabling them to build situational identity. To our knowledge, these explanatory relationships have not been confirmed, and would make for an interesting study in the future.

To our surprise, we did not find support for a relationship between socialization tactics and feedback seeking (H1d). Previous research has found evidence for this relationship, specifically when socialization tactics are collective, serial and investiture (Gruman et al, 2006; Saks & Ashford, 1997). It is possible that our sample was not large enough to support this hypothesis. Even though institutionalized socialization tactics should enable feedback seeking as it provides opportunities for gathering this type of information, it is possible that it would in fact reduce the newcomers' need for uncertainty reduction as argued by Griffin and colleagues (2000). Since our sample participated in predominantly institutionalized socialization programs, we can not confidently argue either way. In addition, there may be other factors outside the scope of this study that could be

antecedents of feedback seeking, such as tolerance for ambiguity (Ashford & Cummings, 1985). Ashford (1986) suggested that organizations in general do not provide enough information to their Newcomers. Conversely, the particular socialization programs included in our study may provide opportunities for information and feedback gathering, thus reducing the newcomers' need to proactively engage in feedback seeking.

5.1.2 Extraversion and Newcomer Proactive Behaviors

According to theory, both environmental factors such as socialization tactics and individual differences could be antecedents of newcomer proactive behavior (Cooper-Thomas et al., 2012). We therefore sought to investigate extraversion as one such individual difference that could have a relationship with newcomer proactive behavior. For our second hypothesis (H2a-d), we found evidence of a relationship between extraversion and all our dependent variables. This was expected, as other studies have presented similar results (Wanberg & Kammeyer-Mueller, 2000; Gruman & Saks, 2011; Kammeyer-Mueller et al., 2011). A distinguishing aspect of our study from the earlier ones is that the strength of these relationships varies more in our results. For example, Kammeyer-Mueller and colleagues (2011) study showed relatively equal strength for relationships (feedback seeking = .21, general socializing = .23, supervisor relationship building = .26). For our study, the relationship between extraversion and the two behaviors that typically concern social behaviors (general socialization and supervisor relationship building) was stronger than feedback seeking. This was in line with our expectations, as more extraverted individuals typically engage in social situations where they can interact with others in order to gain energy as described by Clark and colleagues (2012). Different social opportunities, such as office events where one meets people, should provide the more extraverted newcomer with the external gratification they desire. Even though the assertiveness of more extraverted newcomers may motivate them to engage in feedback seeking, there might be other traits that have a stronger relationship with this proactive behavior (Ashford & Black, 1996; Bateman & Crant, 1993). As discussed previously, feedback seeking could serve an instrumental purpose for career advancement rather than a social one. If so, one might consider the individual to be motivated by ambition which has been suggested to be a function

of extraversion and conscientiousness (Jones et al., 2017). A study on the relationship between extraversion, conscientiousness and feedback seeking could make for an interesting future research.

5.1.3 Extraversion as a Moderator

To gain further insight to our topic, we hypothesized that extraversion would moderate the relationship between socialization tactics and newcomer proactive behavior (H3a-d). As we did not find support for H1b, the relationship between socialization tactics and feedback seeking, we could not include feedback seeking in the moderation analysis (H3b). The results did not support H3a or c, but showed significant results of extraversion as a moderator of the relationship between socialization tactics and supervisor relationship building (d). Lower levels of extraversion in our sample positively moderate the relationship between institutionalized socialization tactics and supervisor relationship building. This indicates that for the newcomer with a lower degree of extraversion, the relationship between socialization tactics and supervisor relationship building becomes stronger. We find this interesting, as the theoretical perspective on general socialization and supervisor relationship building suggests that the two behaviors are quite similar (Ashford & Black, 1996). What differentiates the two is who (peer versus superior), and how the newcomer socializes. One might argue that it is more likely that general socializing happens in a group, especially when socialization tactics are institutionalized. Conversely, the newcomer who is less extraverted should find it more difficult to socialize in a group, as the activity level and outside gratification would be higher. On the other hand, other newcomers or insiders in the group might enable this proactive behavior by inviting, initiating and encouraging social interaction. The measurement item for this factor naturally considers the actions of other people, and the influence of others in the group would make for an interesting future research. For supervisor relationship building on the other hand, the interaction happens between fewer people, often no more than two. It is less likely that the newcomer's proactive behavior would be influenced by the other individual, and the characteristics of the newcomer would be more important, i.e. extraversion. As our results show, for less extraverted newcomers, socialization tactics are more important for supervisor relationship building than for those more extraverted.

5.1.4 Virtuality and Newcomer Proactive Behaviors

Our fourth hypothesis of there being a negative relationship between virtuality and the different newcomer proactive behaviors (H4a-d) was supported partially by the multiple regression analysis. We found that there is a negative relationship between virtuality and general socialization (H4c), but not for the other dependent variables (H4a, b and d). These results show that a higher degree of virtuality in a socialization program is related to lower levels of proactive general socializing by the newcomers. We expected the degree of virtuality to be related with all newcomer proactive behaviors during e-socialization due to its difference in communication style, socializing and information flow. However, it is not surprising that we found this relationship for general socializing, as virtuality reduces both the number of social interactions and the possible arenas for socializing (Gruman & Saks, 2018). It is also likely that the use of ICTs would reduce the informal socializing opportunities that normally occur between meetings. If the newcomer experiences virtuality as a barrier for attending social gatherings, they may be less inclined to proactively build social relationships with their co-workers. Considering our results regarding extraversion (H2c), this suggests that contextual factors such as virtuality have a weaker relationship with general socializing than individual differences such as extraversion. Powell and colleagues' (2004) argument that virtual communication is often more task-oriented than socially oriented would further explain a negative relationship between virtuality and general socializing. However, as feedback seeking often involves information related to tasks, we would have expected there to be a relationship with this proactive behavior and virtuality. In addition, as supervisor relationship building has a social aspect to it we expected this to be related to virtuality as well. However, it is possible that organizations still manage to facilitate opportunities for supervisor relationship building and feedback seeking through its institutionalized socialization tactics during e-socialization, thus reducing the need for proactive behavior on part of the newcomer.

5.1.5 Virtuality and the Relationship Between Extraversion, Socialization Tactics and Newcomer Proactive Behavior

For the fifth hypothesis, we aimed to investigate if there was a relationship between the degree of virtuality and the moderating effect of extraversion between

socialization tactics and newcomer proactive behavior (H5). When our data was split in two groups (virtual and traditional socialization), we did not find evidence to support this. Drawing upon literature in virtual teams and remote work, we expected there to be a relationship, especially for individuals with a low degree of extraversion. As previously argued, these newcomers could find it more difficult with less opportunities presented for different socialization- and feedback seeking activities. On the other hand, the reduction in outside stimuli would enable the less extraverted newcomer to engage in more extraverted behaviors, e.g. general socialization or supervisor relationship building. It is an interesting topic that deserves more research in the future.

5.2 Implications for Theory and Practice

The findings of this study have two primary contributions. Firstly, our findings imply that the relationship between socialization tactics and the proactive behavior supervisor relationship building is positively moderated by lower degrees of extraversion. Secondly, the study suggests that virtuality and general socialization are negatively related. Both of which are to our knowledge not previously researched.

In regards to the moderating role of extraversion, the findings indicate that when organizations plan their socialization programs in the future, they might benefit from tailoring the activities to suit newcomers with varying individual differences. In theoretical terms, this finding supports the previous theories regarding the relationship between individual differences and newcomer proactive behaviors as several studies have argued (Gruman & Saks, 2011; Kammeyer-Mueller et al., 2011; Wanberg & Kammeyer-Mueller, 2000). This adds to the theoretical perspectives by suggesting how the degree of extraversion relates to socialization tactics and newcomer proactive behavior, supporting the explanation of this relationship further. In other words, it allows for the incorporation of both environment and individual differences.

From a practical point of view, our results indicate that organizations can benefit from structuring the organizational socialization to also fit those who score lower on extraversion (e.g., setting up one-on-one conversations between all newcomers and supervisors instead of having mingling sessions where seeking out the supervisor is up to the newcomer.) Conversely, this could enable them to

proactively build relationships with their supervisor and others. This emphasizes that when organizations are planning how they are going to socialize their newcomers they should consider the individual differences of all of their newcomers, even when their tactics are already institutionalized.

Though we could not find evidence for the moderating role of extraversion being related to the degree of virtuality, we still found results that indicate that virtuality has a negative relationship with the proactive behavior of general socializing. From a theoretical perspective, this is an important finding which contributes to a better understanding of e-socialization. It could support the research on virtual work describing how communication is often more task oriented and not socially oriented when virtual (Powell et al., 2004). Our study extends this to the context of organizational socialization.

In practical terms, this finding indicates that organizations should be aware of how newcomers might engage less proactively in socialization behaviors when socialization is virtual. Though our study did not show how virtuality relates to socialization tactics and extraversion, we do suggest that organizations focus especially on socialization tactics that could increase social support in order to enable the proactive behavior of general socialization. Activities which are purely social events where building relationships with others in the organization is the goal could help facilitate social support (Cooper-Thomas et al., 2012). Further, our findings also suggest that organizations could benefit from socializing newcomers using a hybrid model of both traditional and virtual onboarding. It might be fruitful to focus on including activities that enhance general socialization and other relationship building events in a traditional form, while more task oriented and informational sessions might efficiently be conducted virtually.

5.3 Limitations and Future Research

As with all studies, this one too has limitations to consider. Cross-sectional design using self-reporting questionnaires will always risk common method variance to account for the relationships in the results. Following the work of Podsakoff and colleagues (2003), one can question if the variables could have been obtained from other sources. An alternative would have been to measure newcomer proactive behavior and extraversion through behavioral observation. For this study, that would not have been viable for practical reasons. In addition, it may be

difficult to be sure that the behavior is a direct outcome of extraversion as a trait and not affected by for example the context of the situation (Furr & Funder, 2007). Furthermore, using observers could risk increasing other method bias such as social desirability, as it would not have been ethical to observe the respondents without their knowledge and consent.

The measurements used for socialization tactics, extraversion and newcomer proactive behaviors comes from multiple-item scales that have been validated numerous times (Ashford & Black, 1996); Gruman et al., 2006; Gruman & Saks, 2011; Jones, 1986). The exception is virtuality where we developed the measurement due to the absence of previous research. Future studies might benefit from a measure being developed and validated further.

Another concern might be the context of the measurement, where the concern is if the respondents might answer one item based on influence of another (Podsakoff et al., 2003). The items in the survey were mixed to hinder respondents from making such connections, and different scale anchors were used. However, respondents were asked to recall behaviors and events that occurred in the past, for some 2.5 years back. Retrospective recall may hinder respondents to give accurate accounts and even motivate them to give responses they believe are desirable (Krosnick, 1991, in MacKenzie & Podsakoff, 2012). If an appropriate sample of respondents who partook in organizational socialization more recently had been available, it may have reduced the possible common method variance. Therefore, future research could aim to study a sample closer to the actual time of onboarding.

There are also several limitations related to our sample in this study. First of all the sample size is small, consisting of only 89 respondents. This may hinder statistical generalization and reduce the possibility of getting statistically significant results in general (Bell et al., 2018). Thus repeating the study with a notably larger sample size might not only increase the external validity of the research, but there is a possibility that the number of findings would increase as more tests done in the analysis could be statistically significant.

Our sample consisted of graduate recruits from four organizations within auditing, management- or IT consultancy, and internal IT functions. The age of the respondents was 24-41, with a mean of 27.66. Even though the sample includes respondents from at least two generations (Millennial and Generation Z) as well as several functions and industries, it may still not be generalizable to the

whole population. In addition, as recruitment in general may be biased towards those scoring lower in extraversion the sample as in our case is slightly skewed, with a higher mean, 3.44. It is important to have this in mind when discussing results concerning those scoring lower in extraversion.

Even though the cross-sectional design hinders the ability to manipulate variables, and therefore making causality difficult to prove, findings from previous research makes it likely that virtuality, socialization tactics and extraversion are independent variables. Nevertheless, a study adopting an experimental design could be beneficial, especially regarding the previously discussed temporal issue. Furthermore, there are several other newcomer proactive behaviors to study, such as information-seeking, positive framing and role-modeling (Cooper-Thomas & Burke, 2012). Assuming scholars remain in consensus regarding institutionalized socialization tactics, the effects of groups and insiders in relationship with extraversion is a possible future area of research.

6.0 Conclusion

Consistent with theory, our research indicates that how organizations choose to socialize their newcomers has a relationship with which proactive behaviors newcomers will engage in. The study contributes to literature by suggesting that lower degrees of extraversion positively moderate the relationship between socialization tactics and newcomer proactive behaviors. This emphasizes the importance of adjusting the socialization program to the individual differences of the newcomers, even when the socialization tactics are institutionalized. The findings also suggest that there is a relationship between virtuality and newcomer proactive behavior, more specifically general socialization. This underlines the need for adaptation of the socialization program, as organizational life becomes more virtual. Our study could not find evidence of how organizations should adapt in terms of virtuality to better meet the needs of the newcomers based on their degree of extraversion. Nevertheless, organizations will do wisely in keeping newcomers' differences in mind moving forward in an increasingly virtual world.

7.0 References

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8.0 Appendix

8.1 Appendix 1

Appendix 1, Confirmatory factor analysis for Socialization tactics

	Single factor model		Three-factor model		Six-factor model	
	Standard	Robust	Standard	Robust	Standard	Robust
Chi-squared	1598.797	922.395	1407.993	845.570	1388.783	8833.461
Degrees of freedom	405	405	402	402	390	390
P-value	0.000	0.000	0.000	0.000	0.000	0.000
RMSEA	0.183	0.120	0.169	0.112	0.171	0.114