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Emphasizing “me” or “we”: Training framing and self-concept in network-based leadership development

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Training Framing and Self-Concept in Network-Based Leadership Development

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Abstract

This study explores how the motivational framing of a network training program may positively or (inadvertently) adversely impact participants' discomfort with strategic networking and motivation to network. We examine the impact of a "me-focused" framing (i.e., on the personal career benefits that individuals can accrue through strategic networking) and a "we-focused" framing (i.e., on the benefits to the team/organization of individuals' strategic networking) compared to a control group in two field-based quasi-experiments. In both studies, we found no difference between the two training frames in their effect on training outcomes when looking at participants' reactions, on average. However, in the second study, we find that individual differences in the way participants relate to others (i.e., the extent to which they endorse an individual or a collective self-concept) change the impact of the framing on their discomfort with and motivation to network. The findings highlight the importance of considering the match or mismatch between training framing and self-concept. In the we-focused condition, a match was related to decreased networking discomfort, while a mismatch was related to increased discomfort and decreased motivation. In the me-focused condition, a mismatch was counter-intuitively related to decreased discomfort. These findings suggest that considering participants' reactions to training (i.e., change in discomfort and motivation), on average, may mask important differences in their response to network-based training and that tailoring network training to participants' self-concepts may be an important consideration for human resource management professionals.

Keywords: networking, training frame, self-concept, networking discomfort, networking motivation

Practitioner Notes

What is currently known?

1. Network-based leadership development helps participants learn about the characteristics of effective networks and develop interpersonal (networking) skills that are associated with enhanced performance and career success
2. These training programs are most effective when participants actively engage with the material
3. Many people are reluctant to engage in strategic networking because they perceive it as too instrumental, inauthentic, or morally impure

What this paper adds?

1. Quasi-experimental examination of how the motivational frame of the training affects participants' changes in discomfort with strategic networking and motivation to network
2. Shows that reactions to the network training depend on individual differences in the way participants relate to others (self-concept)
3. Highlights the importance of self-concept and motivational frame (mis)match for producing desirable changes in employees' discomfort with and motivation to network

The implications for practitioners

1. A match between the motivational framing of networks training and participants' preferences is key to achieving desirable proximal outcomes
2. Be aware that training may expose participants to a realization of their network shortcomings, resulting in demotivation and bolster confidence during training sessions by devoting significant time to providing practical tools and tips and offer continued coaching
3. Ensure network-based training fits well with the overall culture of the organization, particularly the culture's emphasis on individual and/or collective outcomes

It has long been understood that a key ingredient in career success is effectively managing workplace relationships. As early as 1936, Dale Carnegie aimed to help his readers develop the skills needed to make friends quickly and easily, thereby increasing their popularity, influence, and earning power (Carnegie, 1936). In the decades since, leadership training programs emphasizing relationship-building competencies as an important factor in career success have proliferated. Recently, researchers have argued for deepening these training efforts by adopting a network perspective (Cullen-Lester et al., 2017).

Social network theory identifies informal structures created by the interconnected web of relationships within which we enact our personal and professional lives; these structures provide opportunities and impose constraints (Brass, 2012). In doing so, social network theory has led to a more detailed, quantified understanding of how social relationships affect performance and career success. For example, research has identified network characteristics that are associated with positive career outcomes, such as bridging between unconnected others (Burt, 1992), having connections to people who provide diverse perspectives (Burt et al., 2013), and maintaining deep, trust-filled relationships (Coleman, 1988; Hansen, 1999).

Network-based leadership development helps participants understand the characteristics of effective networks, assess the effectiveness of their own network, and learn strategies to improve (Cullen-Lester et al., 2016). A guiding assumption of these efforts is that developing networking skills enhances career success by facilitating the crafting of effective networks, which provide resources including support, sponsorship, and access to relevant information (Cullen-Lester et al., 2016; de Janasz & Forret, 2008; Wolff & Moser, 2009; Wolff et al., 2008).

Indeed, engaging in the strategies taught in these programs has been linked to higher levels of performance (Casciaro et al., 2014; Sturges et al., 2005), greater career success (Forret & Dougherty, 2004; Langford, 2000; Luthans et al., 1985; Michael & Yukl, 1993; Orpen, 1996; Shipilov et al., 2014), higher salaries and salary growth (Forret & Dougherty, 2004; Gould & Penley, 1984; Wolff & Moser, 2009), and better job and career satisfaction (Forret & Dougherty, 2004; Langford, 2000; Wolff & Moser, 2009).

Importantly, research also suggests that active participation is a key factor determining the effectiveness of network training programs. In the months following a network training program, Burt and Ronchi (2007) found that *active participants*--those who demonstrated their engagement with and comprehension of the material through their questions and opinions--received higher performance evaluations and were more likely to be promoted and retained by their organizations than other (less active) participants or the non-participant control group. Although neither motivation nor changes in behavior were assessed, these findings suggest that fostering motivation to change one's network is likely important for translating the knowledge gained from network training into desirable distal career outcomes.

However, emerging research suggests that preconceived notions about networks and networking may be barriers to active participation in strategic networking. Specifically, many people are hesitant about building, maintaining, and utilizing relationships to benefit their work or career. Some people associate strategic networking with unethical behavior (Melé, 2009), while others feel discomfort with being seen as too instrumental or inauthentic (Azrin & Besalel, 1980; Azrin & Besalel-Azrin, 1982; Bensaou et al., 2014; Cullen-Lester et al., 2016). Beliefs that instrumental, career-focused networking sullies their sense of moral purity deters some people from engaging in networking, undermining their career success (Casciaro et al., 2014). Thus, we

have a quandary: network training programs, many of which may focus on the personal career benefits that individuals can accrue through strategic networking, may inadvertently increase discomfort with strategic networking and decrease the motivation to network, undermining the key objectives of the training (i.e., to help people develop and utilize their professional networks).

This study examines how the framing of a network training program impacts participants' discomfort with strategic networking and their motivation to network. We seek to answer two research questions: 1) Does an emphasis on personal benefits in a "me-focused" (individually framed) or on collective benefits to the team/organization in a "we-focused" (collectively framed) program impact participants' discomfort with strategic networking and their motivation to network? 2) Do individual differences in the way participants relate to others (i.e., the extent to which they endorse an individual or a collective self-concept) and, specifically, the (mis)match between self-concept and the framing of the training impact participants' discomfort with strategic networking and motivation to network? To answer these questions, we conducted two field quasi-experiments comparing participants in a me-focused training, we-focused training, and a control group of non-participants. In the first, a nine-week study of MBA students, we addressed research question one, and in the second, an eight-month study of a diverse sample of Federal Credit Union employees, we addressed both research questions.

Our paper offers several contributions to the growing research examining network-based training and leadership development. First, we introduce the importance of considering the novel concept of motivational framing of the network-based training and explore how the framing of the training may impact participants' reactions to the training, especially depending on the individual differences in participants' self-concepts. Second, we empirically examine the effects

of this training on changes in key attitudes towards networking (i.e., discomfort and motivation). In doing so, we answer the call to supplement the current research on network training (Cullen-Lester et al., 2017), which has primarily been qualitative, with a quantitative, controlled investigation. This work also takes an initial step by expanding our understanding of which training techniques are most effective at producing desirable proximal attitudinal outcomes and suggests the importance of future research examining how novel training designs might maximize positive outcomes by tailoring training to participants' self-concepts. Finally, by focusing on the network training's effect on changes in participants' attitudes towards networking (i.e., discomfort and motivation), we enhance our understanding of the theoretical mechanisms underlying the impact of network training on more distal outcomes.

Burgeoning Network-based Leadership Development Research and Practice

Researchers have begun to uncover how human resource management (HRM) practices impact employees' networks with implications for employees' effectiveness, careers, work attitudes, and even how they define themselves (see Methot et al., 2018; Soltis et al., 2018). Studies focusing specifically on training initiatives have shown that participants can learn network structures (DeSoto, 1960; Freeman, 1992; Janicik & Larrick, 2005), apply their understanding of network structures to improve organizational processes (Cross, 2010; Cross et al., 2002; Cross et al., 2013) and collaboration (Cullen et al., 2015), use their understanding of network structures to make better-informed decisions (Krackhardt & Hansen, 1993), and attain career-benefits attributable to training in which participants learn about advantageous network structures (Burt & Ronchi, 2007). Thus, there is reason to be optimistic that training can help individuals develop their *networking* skills (i.e., skills in crafting professional relationships that can provide access to valuable resources) and their *professional networks* (i.e., career-related

social connections within and outside the focal employee's organization) (Cullen-Lester et al., 2017; Forret & Dougherty, 2001, 2004; Gould & Penley, 1984; Michael & Yukl, 1993; Wolff & Moser, 2009).

At the same time, HRM practitioners are actively working to implement training programs in their organizations at a pace that far exceeds the empirical evidence needed to ensure that the techniques employed are effective. A review by Cullen-Lester et al. (2017) identified 15 articles focused on helping individuals shape their own networks. As stated above, the studies were primarily qualitative, reporting on the techniques that help participants learn how to understand, modify, and leverage their networks. Just one study (Burt & Ronchi, 2007) empirically examined distal outcomes for participants vs. non-participants and found that active participation in the training program was related to higher performance evaluations and greater likelihood of promotion and retention. The dearth of empirical investigations of network training provides several opportunities to advance this field, including examining which training techniques achieve the best proximal and distal outcomes and identifying the mechanisms by which training impacts outcomes. We address this need by varying the motivational framing of the training to determine how different frames impact participants and explicate one potential mechanism for how network training impacts career outcomes (i.e., changes in participants' attitudes towards networking). Below, we first explain why we focus on discomfort with strategic networking and motivation to network as two important, proximal outcomes of network training and then explain why the motivational framing of network training may impact these attitudes.

Assessing Effectiveness of Network Training: Attitude Change

Assessing the effectiveness of network training is important for understanding which techniques best enable participants to achieve their objectives (i.e., developing and utilizing their professional networks effectively) and revealing the mechanisms by which network training results in proximal and distal outcomes. Kirkpatrick Four Levels Model (Kirkpatrick & Kirkpatrick, 2006) for training assessment is a well-established and popular typology for considering different kinds of training outcomes: *Reaction* refers to participants' enjoyment of the training program, *learning* refers to whether participants demonstrated changes in their knowledge, skills, or attitudes, *behavior* refers to whether participants exhibited changes in their behavior as a result of the training, and *results* refer to whether measurable, objective business results improved as a result of the training. Past research on network training has focused on changes in participants' knowledge, skills, behavior, or career outcomes. To our knowledge, no research has examined whether network training programs result in changes in participants' *attitudes* towards networking, which is a proximal 'learning' outcome that is likely a precursor to changes in behavior and may be influenced by the motivational framing of the training (see below). We focus on participants' discomfort with networking and their motivation to network.

Discomfort with Networking

The notion that individuals may experience discomfort with networking has long been recognized (Azrin & Besalel-Azrin, 1982; Bensaou et al., 2014; Cullen-Lester et al., 2016; Melé, 2009). Casciaro et al. (2014) theorized that networking to improve career outcomes would violate some individuals' sense of moral purity. These individuals perceive professional and instrumental networking (in contrast to personal and spontaneous networking) as immoral because it is motivated by personal career gain. Three studies supported the notion that professional, instrumental networking was more likely than personal, spontaneous networking to

elicit feelings of moral impurity (dirtiness). Additionally, the authors found that individuals' discomfort with networking was negatively related to engaging in strategic networking at work, which in turn was negatively related to career outcomes. Given these findings, training that succeeds in reducing discomfort with networking should increase networking activity by the participants, making it an important attitudinal outcome.

Motivation to network

For training to be effective, it must instill in participants the desire to apply the knowledge and skills they have learned in training (Latham, 2007). Noe (1986) theorized that motivation to transfer is the mechanism by which learning results in changes in behavior. Thus, changes in motivation because of training are an important outcome for understanding employees' post-training networking behavior. Moreover, the theory of planned behavior suggests that human behavior can be explained as a psychological process through which individuals' cognitions about engaging in specific behaviors affect their likelihood of actually engaging in the behavior (Ajzen, 2005). Central to this theory is that individuals' intentions to perform given behaviors capture individuals' motivation to engage in specific behaviors and indicate the effort they are willing to exert to enact the behavior (Ajzen, 1991). Prior empirical research has found that behavioral intentions of various types are positively related to their target behaviors (e.g., in a meta-analysis, Ajzen (1991) found multiple correlations averaging $r = .51$ across a range of different activities, including job searches (Van Ryn & Vinokur, 1992), performance on cognitive tasks (Locke et al., 1984), participation in elections and voting choices (Netemeyer et al., 1990), and academic participation (Ajzen & Madden, 1986). Voluntary turnover research has also repeatedly found that turnover intention is positively related to actual turnover (Cho & Lewis, 2012; Holtom et al., 2008; Tett & Meyer, 1993; Vardaman et al., 2015).

Thus, assessing intentions to network is a suitable short-term outcome for capturing changes in employees' motivation to network.

Importantly, an integrative literature review of research on motivation to transfer training found that changes to the training program can influence motivation to transfer (Gegenfurtner et al., 2009). For example, carefully determining whether the program should be mandatory or voluntary, providing information ahead of the training, and providing opportunities for learner input it is possible to more successfully generate motivation to transfer (Bates & Holton III, 2004; Devos et al., 2007; Holton III et al., 2000; Ruona et al., 2002). Thus, previous research suggests that training that increases employees' motivation to engage in strategic networking behaviors will likely promote actual engagement in the networking, and motivation may be influenced by changes to the training format. Next, we explore the potential impact of the motivational framing of the training.

Motivational Framing: Individual and Collective Benefits from Effective Networks

The motivational framing for a training session essentially answers the question, "why should I attend this training?" This information is designed to motivate participants to engage with the material (i.e., be an active participant). Historically, the benefits of social networks have been conceptualized into two broad categories: 1) *individual benefits* such as career advancement and the success resulting from connections to resource-rich others or by occupying brokerage positions within work networks (Burt, 1992; Lin, 1999), and 2) *collective benefits* such as high levels of trust and support among members of the network that result from network properties such as interconnectedness (Coleman, 1988). Individual benefits from effective networks include early access to diverse information (Burt, 1992), cognitive flexibility gained from incorporating and making sense of diverse viewpoints from different contacts (Burt et al., 2013), high

performance (Cross & Thomas, 2008; Mehra et al., 2001), influence (Brass, 1984), higher status (Lin, 1999), and enhanced career progression, career mobility, and adaptive abilities (Burt et al., 2009). Collective benefits include greater social support and increased trust (Coleman, 1988), enhanced knowledge-sharing (Hansen, 1999; Reagans & McEvily, 2003), and enhanced team effectiveness, viability, and performance (Balkundi & Harrison, 2006; Oh et al., 2004).

In this study, we compare network training that differs in the motivational frame, either individual (me-focused) or collective (we-focused), used to discuss "why" (i.e., the benefits) of the training. Both motivational frames convey clear benefits that might motivate participants to learn about effective network structures, assess their own networks, and identify how they can improve. However, me-focused training that emphasizes the personal benefits an individual can enjoy may be considered by some participants to be overly instrumental and thus negatively impact training outcomes. In contrast, it is unclear whether we-focused training emphasizing the collective benefits that can accrue to the team/organization will be 1) sufficient to overcome preconceived notions of strategic networking that manifest in discomfort or 2) motivational enough to spur individuals to develop their network to benefit their team/organization. Therefore, with our first research question, we examine the possibility that the motivational framing of network training can impact the effectiveness of the training by changing participants' discomfort with networking and their motivation to engage in strategic networking.

Study 1 Method

Setting and Sample

We conducted our first quasi-experiment among 84 students in an accredited MBA program in the United States. The average age of students in the program was 32.8; 45.8% of the

students were female; 85.5% of the students were white; the average amount of work experience was 10.7 years.

Procedure

We recruited participants via invitations sent to their student e-mail accounts. We offered entry into a drawing to receive one of 40 $5 gift cards from a local coffee shop as an incentive to participate. We used an untreated control group design with pretest and posttest and two experimental conditions (Cook & Campbell, 1979, pp. 103-104). The students in the training conditions were enrolled in two sections of a required Organizational Behavior course. Those in the first section were assigned to training condition 1 (N = 30), and those in the second section were assigned to training condition 2 (N = 34). The network training program was a required part of the course, but participation in the experiment was voluntary. Students in the control group (N = 20) were MBA students who had not yet enrolled in the Organizational Behavior course. Although it was not feasible to randomly assign participants to one of the three conditions, concerns regarding confounding variables are lessened because the students in the three conditions did not vary significantly regarding extraversion, age, gender, race, or work experience. The statistical results for the one-way ANOVA tests, which found no significant between-group mean differences, are available from the authors upon request.

Participants in both experimental conditions and the control group completed an online survey at the beginning of the semester to assess their baseline attitudes towards professional social networks and networking, including discomfort with strategic networking and motivation to network. The survey also collected demographic and work experience data. Participants indicated their informed consent by checking a box before entering the first online survey.

One week later, participants accessed network training materials via an online lesson in the university's learning management system. The lesson included four components. Component 1 was an introduction video that explained the goals for the online lesson, defined the term "network," outlined the advantages of effective networks, and provided direction on the steps to complete the assignment. The two experimental conditions varied in the advantages the video described. In condition 1, the me-focused frame, participants learned about benefits those individuals with effective networks enjoy; for example, that they are often among the organization's top 20% of performers and are better at adapting to change (Burt et al., 2009; Cross & Thomas, 2008). In condition 2, individuals in the we-focused frame learned that teams, departments, and organizations whose members have effective networks enjoy benefits such as team members investing more time, energy, and effort in sharing knowledge with each other (Reagans & McEvily, 2003). See Appendix A for training materials.

Component 2 was an instruction video for completing the Leader Network Diagnostic (Willburn & Cullen-Lester, 2018), a training program designed to teach participants how to quantify and visualize their professional social networks. The instructions and diagnostic were the same for both conditions.

Component 3 was an interpretation video that guided participants through the characteristics of effective networks, asked them to engage in several exercises designed to help them interpret how well their own networks matched the characteristics of an effective network, and suggested networking strategies they could use to craft and manage effective networks. The two conditions varied in the advantages the video described. Students in condition 1 again learned about the individual career advantages that effective networks could provide, while students in condition 2 learned about collective advantages. In other words, the network

characteristics described were the same for each condition, but we again varied the description of the benefits associated with each network characteristic. For instance, one benefit of bridging ties in the me-focused frame was that they enhance individual creativity (Burt, 2004). In contrast, the benefit of bridging ties in the we-focused frame was that they help *teams* produce creative solutions (Milliken & Martins, 1996).

In sum, in our study, we varied the motivational framing between the two training conditions at two points in the training materials. All other training components were identical for the two groups, allowing us to closely examine the potential impact of different motivational framing on the training outcomes.

Component 4 was a post-training online survey that included an evaluation of the training and a manipulation check. Participants used a slider to indicate the focus of the training, ranging from "my individual career success" to "team/organization's success." The mean response varied significantly between the two conditions (t (43) = -2.05, p = .047). Participants in condition 1 were more likely to indicate that the training focused on their individual career success, and participants in condition 2 more likely to indicate that the training focused on their team/organization's success, suggesting the experimental manipulation functioned as intended.

Finally, participants in both experimental training conditions and the control group completed an online survey at the end of the semester, nine weeks after completing the first survey, which again assessed their attitudes towards social networks and networking.

Measures

Dependent Variables

We assessed the training outcomes using measures of discomfort with networking and motivation to network. Each was assessed by having participants rate their agreement with multiple statements on a 7-point Likert-type scale (1=strongly disagree; 7=strongly agree).

Discomfort with networking (α=.72) was assessed using three items adapted from Casciaro et al. (2014). As in the Casciaro study, we assessed participants' feelings of discomfort and inauthenticity when engaged in professional networking. Items: "I feel fake when I am engaged in professional networking activities," "Forging professional ties with others makes me uncomfortable," and "The idea of professional networking turns me off."

Networking motivation (α=.76) was measured as the behavioral intentions of respondents to engage in improving their professional networks. This approach is consistent with the notion that behavioral intentions are a strong and reliable predictor of future behaviors (Ajzen, 1991), and that motivation to transfer training is an important desired outcome. Three scale items were generated according to Ajzen and Fishbein's (1980, p. 261) recommended guidelines. Items: "I intend to work on improving my professional network" "I will expend a great deal of effort to improve my professional network," and "I am motivated to make changes to improve my professional network."

Independent variable and controls

Training condition, as described in the procedure section above, was our predictor variable. There were 30 participants in training condition 1: me-focused benefits, 34 participants in training condition 2: we-focused benefits, and 20 participants in the control group.

Students in this program included a mix of individuals who had just completed their bachelor's degree and those with significant work experience who were returning to school to update or enhance their skills. We controlled for gender and work experience. We also controlled for extraversion (α=.89; μ=4.26 on a 7-point scale), because this trait has been found to relate to network size (Feiler & Kleinbaum, 2015; Malcolm et al., 2021; Pollet et al., 2011) and networking behavior (Wolff & Kim, 2012). We measured extraversion using four items adapted from Donnellan et al. (2006). Sample item: "In social situations, I am the life of the party."

Analytical Approach

To answer the first research question, we estimated a two-way interaction model (i.e., the time by treatment condition interaction). This analysis allowed us to examine whether changes in the outcome from before to after the training (i.e., the amount of improvement over time) depended upon the treatment that the participant received. Ideally, the two treatment conditions would result in greater improvement over time than the control (e.g., greater decreased discomfort with networking and increased motivation to network), which would be indicative of a positive treatment effect. Because time was nested within person, mixed models were used to account for the dependency of the observations from the same participant. Specifically, SAS PROC MIXED was used to estimate a series of linear mixed models to determine the covariance structure that provided the best fit to the variances and covariances for each of the outcomes from each of the samples. Restricted maximum likelihood was used to estimate all models. Two modeling alternatives were compared in terms of their ability to account for the dependence due to time being nested within person: the compound symmetric covariance matrix (i.e., equivalent to the univariate repeated measures analysis of variance) and the unstructured covariance matrix

(i.e., equivalent to the multivariate approach to repeated measures ANOVA). A chi-square difference test was used to assess whether the heterogeneous variance unstructured model fit better than the homogeneous variance compound symmetry model. This procedure is done to ensure that the standard errors for the fixed effects (i.e., the regression coefficients) are as accurate as possible when the fixed effects are evaluated for statistical significance.

The fixed effects (i.e., the predictors of interest) were coded such that pre-intervention and the control group were the reference categories. Interaction plots were created, and simple effects were explored when interaction terms were statistically significant. All covariates were mean-centered. Overall R-square was utilized as our estimate of effect size (see results tables).

Study 1 Results

In Study 1, we sought to answer: Does the motivational framing of the training with a "me" focus or "we" focus impact participants (a) discomfort with networking and (b) motivation to network? Descriptive statistics and correlations between variables are reported in Table 1. For discomfort with networking, we find a non-significant *time* by *condition* omnibus interaction effect indicating that (on average) the training conditions did not reduce discomfort (measured pre- and post-training) more than the control condition, $F(2, 68) = .84$, $p = .43$. Moreover, neither the me-focused condition ($b = -.49$, $p = .20$) nor the we-focused condition ($b = -.25$, $p = .50$) reduced participants' discomfort with networking more than the control group when examined separately (see Table 2 for complete results). Of note, the only significant covariate in the analysis was extraversion ($b = -.54$, $p < .0001$).

Insert Tables 1 and 2 about here

For networking motivation, we find a significant *time* by *condition* omnibus effect, $F(2, 68) = 4.69$, $p = .01$. When looking at the two treatments separately, we see that both the me-focused condition ($b = .85$, $p = .03$) and we-focused condition ($b = 1.10$, $p < .01$) improved more than the control group. Moreover, participants in the we-focused condition improved significantly over time ($b = .67$, $p < .01$) as did participants in the me-focused condition, although the significance of this effect was marginal ($b = .43$, $p = .07$). See Table 3 and Figure 1 for the simple effects. Extraversion was a marginally significant covariate in this analysis as well ($b = .14$, $p = .06$).

Insert Table 3 and Figure 1 about here

Study 1 Discussion

Not surprisingly, extroverts exhibited lower discomfort with networking and (marginally) greater motivation to network, independent of training condition. Controlling for this personality difference, we find that although neither the me-focused nor we-focused training condition impacted discomfort with networking more than the control group, both conditions positively impacted motivation to network in comparison to the control group. While encouraging in the sense that these findings provided evidence that network training can increase participants' motivation to network, we found no significant difference between the two conditions (i.e., similar motivating potential for each type of framing in this sample). In other words, the treatment groups improved motivation equally. These findings led us to ponder why the training did not impact networking discomfort and why the motivational framing of the training did not differentially impact participants' motivation to network.

A potential reason that the motivational framing did not exhibit differences in its impact on participants' reactions is that participants did not universally react the same way to the me-focused or we-focused motivational framing. The experiment tested how me-focused and we-focused training conditions impacted discomfort with strategic networking and motivation to network without considering potential preferences or biases among our training participants. Our reasoning for expecting motivational framing to impact participants' reactions was that discomfort with strategic professional networking comes from feeling too instrumental when engaging in it (Azrin & Besalel-Azrin, 1982; Bensaou et al., 2014; Casciaro et al., 2014). However, people who are strongly focused on their own career success would not be as likely to be uncomfortable about being instrumental in achieving their career aims. In other words, it is reasonable to assume that some people are more strongly motivated by individual career benefits, and some are more motivated by collective benefits; thus, in addition to the motivational framing of the training, it may be important to consider its match or mismatch to training participants' preferences to more deeply understand how training impacts outcomes.

Study 2

Study 2 is a replication and extension of Study 1 conducted within an organizational setting and over a substantially extended time frame. In addition to examining the effects of individual (me-focused) and collective (we-focused) motivational framing in comparison to a control group using a quasi-experimental design, we also explore how an individual difference, *self-concept,* which reflects the importance individuals place on individual and collective outcomes, impacts their reactions to the training. We argue that when the motivation framing of the training is mismatched with participants' self-concept, they will experience increased discomfort with networking and decreased motivation to network.

Self-concept and motivational framing of network training

Self-concept is a multi-faceted schema that people use to self-define all the information that is relevant to who they are (Johnson et al., 2006). It is the way in which they conceive of themselves, which includes their personal identity and their *social identity*, or how they define themselves in relation to others (Oyserman, 2001). Three levels of this facet of self-concept have been identified: individual, relational, and collective (Brewer & Gardner, 1996; Lord et al., 1999; Markus & Kitayama, 1991). *Individual* self-concept is the extent to which a person's self-worth is derived from comparisons with others. People who exhibit high individual self-concept are motivated by self-interest (Johnson et al., 2006). *Relational* self-concept is the extent to which individuals define themselves based upon dyadic relationships with others and is marked by a concern for the welfare of the individuals to whom the focal person is connected (Johnson et al., 2006). *Collective* self-concept is the extent to which individuals define themselves based on their membership in social groups. Favorable in-group vs. out-group comparisons result in increased feelings of self-worth (Brewer & Gardner, 1996; Tajfel et al., 1979). It is important to note that the different facets of self-concept are independent of each other; that is, one individual could exhibit both high individual self-concept and high collective self-concept--they are not mutually exclusive--although individuals tend to exhibit a dominant facet (Johnson et al., 2006).

Supporting the notion that self-concept will impact how participants react to the motivational framing of network training, self-concept has been found to influence numerous attitudinal measures in past research. Examples include the salience of different aspects of organizational justice and commitment and their impact on consequent attitudes and behaviors (Johnson & Chang, 2006; Johnson et al., 2006) and social interactions between leaders and followers (Lord et al., 1999). Perhaps most relevant to our study, Markus and Kityama (1991)

suggested that independent vs. interdependent construals of the self differentially impact the motivational factors that lead individuals to engage in certain behaviors. In this perspective, conceptualizing the self as independent of others results in behavior motivated by internal needs, such as enhancing one's self-esteem or individual achievement. In contrast, conceptualizing the self as interdependent with others results in behavior motivated by factors that consider the feelings or needs of others. Thus, although both independent and interdependent self-construals can exhibit a need to achieve, the target for the achievement will be individual-focused for the independently construed self and collective-focused for the interdependently construed self (e.g., group achievement, meeting group expectations). Although Markus and Kityama's work was focused on general differences in self-construals based on national culture, it is clearly related to differences in self-concept at the individual level.

Thus, we expect the motivational framing of network training to impact participants differently depending upon their self-concepts. Accordingly, in Study 2, we explore the possibility that individual differences in the way participants relate to others (i.e., the extent to which they endorse an individual or a collective self-concept) and, specifically, the (mis)match between self-concept and the framing of the training, impact participants' discomfort with strategic networking and motivation to network.

Study 2 Method

Setting and sample

We used the same experimental design as described in Study 1. Our sample was made up of 75 employees at a Federal Credit Union in Western U.S. Participants came from all levels of the organization: 62.7% were individual contributors, 13.3% were supervisors/front-line managers, 14.7% were directors, and 9.3% were VPs, SVPs, or members of the top management

team. The average age was 39.8; the average tenure with the organization was 8.96 years. Gender and race were self-reported on the online survey (63 respondents); among respondents, 57.3% were female, 25.3% were male, and 1.3% preferred not to indicate their gender; 96.0% were white, 2.7% identified as mixed-race, and 1.3% preferred not to indicate their race.

Procedure

The organization was divided into six branches, with one of the branches also housing the administration and leadership. Because of this makeup, and to simplify and clarify communication about the study to employees, we assigned employees in the five smaller branches to training condition 1 (N = 25), and split employees in the largest branch among training condition 2 (N = 17) and the control group (N = 33). The employees in the three conditions did not vary significantly regarding extroversion, age, gender, race, level, or tenure with the organization. Results for one-way ANOVA tests, which found no significant between-group mean differences, are available from the authors. Participation in the study was voluntary. All participants were recruited via invitations sent to their work e-mail accounts.

Participants in both training conditions and the control group completed an online survey designed to assess their baseline attitudes towards professional social networks and networking, including their level of discomfort with strategic professional networking and motivation to network. The survey also collected demographic data and levels of self-concept. Participants indicated their informed consent by checking a box before entering the survey.

Next, participants in the two training conditions participated in a live two-hour training session conducted by the first author in the training facility at the main branch. To encourage participation in the training, participants were given several session times to choose from, which had the motivational frame they were assigned.

The training included four components. In component 1, the instructor explained the goals for the training, defined the term "network," and outlined the advantages of effective networks. The two experimental conditions varied in the advantages described. As in Study 1, participants in condition 1 learned about the individual career advantages that effective networks could provide, such as high individual performance and early and more frequent promotions. Participants in condition 2 learned about the collective benefits that effective networks could provide, such as better team problem-solving and enhanced knowledge sharing (refer to Appendix A for complete training materials).

In component 2, participants completed the Leader Network Diagnostic (Willburn & Cullen-Lester, 2018). As in Study 1, the directions for the assessment did not vary between conditions. In component 3, the instructor described and illustrated the characteristics of effective networks, led participants through several exercises designed to help them interpret how well their own networks matched the characteristics of effective networks, and suggested networking strategies they could use to craft and manage effective networks. The two conditions again varied in the advantages described, as outlined in the description of Study 1.

Component 4 was a post-training paper survey that included an evaluation of the training and a manipulation check that asked participants to indicate the focus of the training they had just completed by answering two Likert-type questions: "The training today explained how effective networks can impact 1) my individual career success, and 2) my team / branch / department's success)." The mean responses to the two questions did not vary significantly between the two conditions ($t(40) = -1.07$, $p = .29$, and $t(40) = -1.01$, $p = .32$, respectively), which suggests that participants did not consciously recognize an emphasis on the motivational frame of the condition. However, this may be because we did not ask a forced-choice type of

question, and participants may have assumed a desirable response was to say that the training emphasized both personal and organizational (team, branch, and department) success. Finally, participants in both experimental conditions and the control group completed an online survey administered eight months after the first survey, which again assessed their discomfort with strategic networking and their motivation to network.

Measures

Dependent variables

We assessed the training outcomes using the same two measures as in Study 1: discomfort with networking (α=.86) and motivation to network (α=.90).

Independent variable, moderator, and controls

Training condition, as described in the procedure section above, was our predictor variable. There were 25 participants in training condition 1 (me-focused), 17 participants in training condition 2 (we-focused), and 33 individuals in the control group.

Self-concept was measured using the Levels of Self-Concept scale developed by Selenta and Lord (2005). Because we were interested in examining how participants' tendencies to focus on individual or group outcomes affected their reactions to the two training conditions, which emphasized either individual or group benefits, we used Selenta and Lord's *Comparative identity* (individual) (α=.71) and *Group achievement focus* (collective) (α=.68) subscales. Individual subscale sample item: "I have a strong need to know how I stand in comparison to my coworkers." Collective subscale sample item: "I feel great pride when my team or group does well, even if I am not the main reason for its success."

We controlled for gender, hierarchical level, tenure, extraversion (α=.81; μ=4.08), and whether the participants had changed branch location during the study (17.3% of participants had changed their branch location).

Analytical Approach

We employed a similar analysis as in Study 1, estimating a two-way interaction model (i.e., time by treatment condition interaction) to answer our first research question. We also estimated a three-way interaction model to answer our second research question. This analysis allows us to examine whether the treatment effects (i.e., differences in the outcomes between the treatment and the control conditions over time) depended upon the match or mismatch between treatment and self-concept.

Study 2 Results

In Study 2, we sought to answer two research questions. First, does the me-focused or we-focused motivational framing of network training impact participants' (a) discomfort and (b) motivation? Second, is the effect of training framing moderated by match or mismatch with participants' (individual and collective) self-concept? Table 4 provides descriptive statistics and correlations between the variables.

Findings for Research Question One

We find that for discomfort with networking, there is a non-significant *time* by *condition* omnibus interaction effect. This finding means that (on average) the training conditions did not reduce discomfort (measured pre- and post-training) more than the control condition, $F(2, 60) = .03$, $p = .97$ (see Table 5 for complete results). As in Study 1, when examined separately the

results are the same: Neither the me-focused (b = -.09, p = .82) nor the we-focused (b = -.06, p = .89) training condition reduced discomfort more than the control condition. Extraversion was again a significant covariate in the analysis (b = -.28, p = .02). Gender (coded as 0=female, 1=male) was also a significant covariate in the analysis (b = -.77, p = .02), as was changing branches (b = -.98, p = .01). Thus, among participants in the second study, male employees, employees who changed branches, and extraverted employees reported lower levels of discomfort with networking, independent of training condition.

Insert Tables 4 and 5 about here

For networking motivation, we find a significant *time* by *condition* omnibus effect, $F(2, 51) = 5.44$, $p < .01$. When looking at the two treatment indicator variables separately, we see that both the me-focused condition (b = -.80, p = .01) and we-focused condition (b = -.96, p = <.01) decreased more than the control group. See Table 6 and Figure 2 for simple effects.

Insert Table 6 and Figure 2 about here

Findings for Research Question Two

We examined whether a match or mismatch between network training framing and participants' self-concepts affected training outcomes. We conceive a *match* to occur for participants in the me-focused condition who are high in individual self-concept and for participants in the we-focused condition who are high in collective self-concept. We conceive a *mismatch* to occur for participants in the me-focused condition who are high in collective self-concept *or* who are low in individual self-concept. A mismatch occurs for participants in the we-

focused condition who are high in individual self-concept *or* who are low in collective self-concept.

For networking discomfort, we find that both omnibus three-way interaction terms are significant, indicating that, on average, both individual and collective self-concept moderate the effect that treatment (i.e., framing condition) has on improvement over time, $F(2, 45) = 3.73$, $p = .03$ and $F(2, 45) = 5.10$, $p = .01$, respectively. Extraversion ($b = -.24$; $p = .05$), gender ($b = -.75$; $p = .03$) and changing branch ($b = -.88$; $p = .03$) remained significantly related to networking discomfort, independent of training condition. See Table 7 for complete results.

The effect of the we-focused condition is moderated by both collective and individual self-concept ($b = -2.05$ and .88, respectively, $p < .05$). We find that a match between we-focused framing and high collective self-concept is related to a decrease in networking discomfort over time ($b = -.85$, $p < .10$, see Figure 3). In instances where a mismatch occurred, discomfort increased over time: for those with low levels of collective self-concept ($b = 1.55$, $p = .07$; see Figure 3) and for those high in individual self-concept ($b = 1.20$, $p = .02$; see Figure 4). These simple effects of improvement over time in the we-focused condition highlight the importance of the training framing and self-concept match for addressing discomfort.

The effect of the me-focused condition is only moderated by collective self-concept ($b = -.93$, $p < .05$), unexpectedly indicating that a mismatch between me-focused framing and high collective self-concept is related to larger treatment effects (larger decreases) over time. Although not statistically significant, the simple effects for those high in collective self-concept who were in the me-focused condition decreased more than those with lower levels of collective self-concept (see Figure 5).

Insert Table 7, Figures 3, 4, and 5 about here

Regarding networking motivation, the omnibus three-way interaction term for individual self-concept is significant, $F(2, 45) = 3.21$, $p < .05$, but not the term for collective self-concept $F(2, 45) = 2.25$, $p = .12$ (see Table 8), indicating that only individual self-concept moderates the effect that treatment (i.e., framing condition) has on improvement over time. Thus, we removed the non-significant three-way interaction term for collective self-concept and the associated non-significant two-way interaction terms to aid in interpreting the findings (Cohen et al., 2014). Examining the we-focused condition separately, we find that it is moderated by individual self-concept (b =-.55, $p < .05$), indicating that a mismatch is related to a decrease in networking motivation. Participants in the we-focused condition who had high or average levels of individual self-concept exhibited a decrease in networking motivation (b = -1.40, $p < .01$; b = -.64, p = .02, respectively). Thus, these simple effects again highlight the peril of training frame and self-concept mismatch (see Figure 6) in the we-focused condition.

Insert Table 8 and Figure 6 about here

Study 2 Discussion

As in Study 1, we found that neither the me-focused nor we-focused motivational framing decreased discomfort with strategic networking (after controlling for extraversion and other demographic variables). Thus, there does not appear to be a universal advantage to adopting either the me-focused or we-focused motivational framing for addressing participants' potential uneasiness with strategic networking. In Study 2, however, we identified an

explanatory factor (missing in Study 1), which provides greater insight into changes in participants' attitudes after attending network training: the match or mismatch between training framing and self-concept.

When participants who were high in collective self-concept received we-focused training (i.e., their self-concept 'matched' the motivational framing), the training was successful in reducing discomfort with networking. These findings suggest that participants whose sense of accomplishment is enhanced by contributions to their social groups (i.e., those who are high in collective self-concept) responded positively to the collective benefits highlighted in the we-focused condition (i.e., demonstrated a resulting decrease in networking discomfort).

In contrast, participants who were high in individual self-concept (i.e., those who defined themselves in comparison - and competition - with others) did not respond well to the we-focused framing, nor did participants who were low in collective self-concept. In these instances of "mismatch" between their self-concept and the we-focused training framing, discomfort increased over time (i.e., post-training as compared to pre-training). We also found that a mismatch between training frame and self-concept had negative consequences for motivation to network. In the we-focused condition, participants who were average or high in individual self-concept exhibited a decrease in motivation to network over time. The explanation for the negative implications of a mismatch with the we-focused condition is interesting to consider. These negative effects are not likely attributable to individuals high in individual self-concept being hampered by feelings that strategic networking sullies their moral purity. Rather, these results suggest that the assertions that effective networks can bring collective benefits to the team, department, or organization were most likely discomforting and demotivating because the

incentives were of no interest to the more self-focused participants. In effect, they likely thought, "what's in it for me?" and, as a result, lost interest in exerting the needed effort.

Surprisingly, participants who were high in collective self-concept also responded more positively (i.e., larger treatment effects) than those with lower levels of collective self-concept after attending the me-focused training that emphasized benefits to their own careers. Perhaps those who are high in collective self-concept are better than others at incorporating new information into their world views. In other words, they might think of ways to take the personal benefits outlined in the me-focused training and use them to help others. In fact, some networks researchers argue that individual benefits from effective networks often translate into collective benefits for the team, for example, team members' personal network characteristics benefitting overall team creativity (Shalley & Perry-Smith, 2008). A realization like this would help collectively oriented training participants overcome any hesitations about strategic networking because they know they can transfer individual benefits to others.

It is also interesting to note that in contrast to the increase in motivation among the MBA training participants in Study 1, participants from the Federal Credit Union in Study 2 exhibited a decrease in motivation to network. Several factors could have influenced this counter-intuitive result. First, the timeframe of the experiment in Study 1 was relatively short, with the assessment of the post-training impact occurring only nine weeks after the training occurred. In contrast, assessment in the credit union took place more than six months after the training took place, indicating that if there were any positive effects of the training on networking motivation, they were ephemeral. Second, past research has uncovered similar issues with self-evaluations pre- and post-training, referred to as the response-shift bias (Howard & Dailey, 1979). It is possible that participants' understanding of what "networking" and "networks" mean changed.

Participants may have realized that there is more to having an effective network than they had realized before completing the training. They may also have experienced the challenges of attempting to implement what they learned at work. Both possibilities may explain the decrease in motivation to network.

General Discussion

With these field quasi-experiments, we sought to deepen our understanding regarding the potential impact of the motivational framing of network training programs on two key proximal outcomes, participants' discomfort with strategic networking and motivation to network. With the increased recognition of the positive impact that effective networks have on individual and organizational outcomes, these types of programs have proliferated in recent years. While evidence suggests participants can learn about network structures (e.g., Janicik & Larrick, 2005), and training can improve more distal performance and career outcomes (e.g., Burt & Ronchi, 2007), not much is known about how such training may impact employees' discomfort with and motivation for strategic networking. We believe it is important to address this gap as discomfort with and motivation to network have been shown to impact individuals' participation in strategic networking (Casciaro et al., 2014). Below we describe how the current study helps move the field in this direction and points to important directions for future research on network-based development.

Theoretical and Practical Implications

This study provided some preliminary answers to two research questions with immediate implications for theory and practice: 1) framing can impact motivation, and 2) match matters, and also led to myriad new questions that can guide future research.

We began this research project with a focus on participants' discomfort with and motivation to engage in strategic networking because many people feel uncomfortable with strategic professional networking (Casciaro et al., 2014). This discomfort may prove to be an obstacle to enthusiastic participation, and thus benefiting from network training (Burt & Ronchi, 2007). Moreover, participants' discomfort with networking and motivation to network are two logical targets (proximal outcomes) that HR practitioners may wish to impact with the motivational framing of the training session. Thus, we sought to determine if training that emphasized individual (me-focused) or collective (we-focused) benefits would change participants' discomfort with and motivation to network compared to a control group of non-participants. Our results suggest that instead of having a general impact, the match or mismatch between the training frame and participants' individual or collective self-concept is important for understanding networking discomfort. Consistent with these findings, the decreased motivation to network in the Credit Union sample can be partly attributed to a mismatch between training frame and participants' preferences: individuals who exhibited average or high levels of individual self-concept reported decreased motivation to network over time when assigned to the we-focused training. These results suggest that human resource managers should be mindful of their participants' preferences regarding expected rewards that training programs can provide.

The impact of the training conditions on networking motivation differed across the samples (i.e., both training conditions resulted in increased motivation to network in the MBA sample and decreased motivation to network in the Federal Credit Union sample). The decrease in networking motivation for both conditions in Study 2 may suggest that many working professionals may not think critically about their career networks. Thus, when exposed to how their own networks fall short of demonstrating the characteristics of effective networks, they may

feel demotivated rather than motivated to make the needed changes. As HRM scholars and practitioners, we must understand this possibility and find ways to address it. HRM professionals should prioritize bolstering networking confidence during the training session by devoting more time to providing practical tools and tips for improvement. For example, practitioners may consider including confidence-building tools and roleplay practice to help their participants feel motivated rather than disheartened. They may also offer follow-up sessions after the training in which participants can receive continued coaching on their networking efforts. Future studies can test what kinds of follow-up programs and practical tips are most helpful.

Given the layperson's perspective on networks and networking, which tends to emphasize individual career benefits of effective networks, it is possible that training that focuses on potential collective benefits--for the team, department, or organization--comes as a surprise to many training participants. For participants high in collective self-concept, this surprise may be a welcome one, as it clearly reduced their discomfort with networking. However, for those with higher levels of individual self-concept, the opposite occurred, and their discomfort with networking increased while their motivation decreased. Future studies can examine ways to lessen the surprise or address it during the training session to see which methods are most effective.

HRM professionals designing network training programs should also consider whether to tailor their training to match participants' self-concepts. Perhaps it would be best for those with individual-level self-concept to participate in training geared toward individual benefits and those with collective-level self-concept to participate in training geared toward communal benefits. Alternatively, it might be best for companies to ensure that any network training always includes a focus on both individual and collective-level benefits. This emphasis might help to

motivate both collectively and individually oriented people while still curbing overly individualistic tendencies in network crafting. Finally, companies should ensure that network training fits well with the overall culture of the organization. For example, a focus on the collective benefits of effective networking is likely to be well-received in companies that value collaboration and teamwork as a hallmark of their cultures.

Limitations and Future Research Directions

While this study has notable strengths, including the use of a quasi-experimental, longitudinal design in two field settings, thereby offering a real-world assessment of the impact of network training's motivational framing on important proximal outcomes, we also acknowledge several limitations. First, due to constraining factors related to course scheduling and organizational design, we could not randomly assign participants to conditions. Participants in the conditions did not differ in their extroversion or demographic characteristics, helping mitigate concerns. Yet, our lack of random assignment to conditions limits any claims we might make regarding causality. Second, future research establishing the implications of different types of motivation framing will want to examine not only discomfort with and motivation to engage in strategic networking but also changes in observable behavior and longer-term work and career outcomes. We draw on strong theoretical foundations regarding the link between motivation and behaviors. Still, additional research is needed to empirically examine these relationships, including any contingencies that may strengthen or weaken the connections between discomfort and motivation and actual strategic networking behavior.

Third, although our manipulation check in Study 1 indicated that the manipulation worked as expected, the Study 2 manipulation check did not meet that criterion. In retrospect, we should have retained the slider design used in Study 1 rather than switching to two separate

questions, which effectively jettisoned the forced-choice design. We chose the two-question format because we were concerned that the slider-type question would not work as well for the paper-based data collection required in Study 2 (vs. the online approach used for Study 1). Because the training content was identical in the two studies, we believe that the inconclusive results of the manipulation check in Study 2 are due to the question design rather than any issue with the differences between the two conditions.

Fourth, we focus on motivational self-concept in this study due to its conceptual relevance to how people may feel toward strategic networking. However, several other individual difference variables are likely to impact how individuals respond to network training. Notably, we control for extraversion, which is predictive of network size and networking behavior (e.g., Feiler & Kleinbaum, 2015; Wolff & Kim, 2012). Thus, findings regarding self-concept are above and beyond what can be explained by individual differences in extraversion. We recommend future research also consider participants' lay theories of networking (i.e., whether participants believe the ability to network is an innate capability or something that can be improved with training and development; Kuwabara et al., 2018). Individuals who believe that networking is a skill that can be learned engage in more professional networking activities (Kuwabara et al., 2020). Researchers might also consider examining individual differences that tap into the need for power and need for affiliation, as unmeasured differences in participants' general level of ambition and career devotion may influence their reactions to network training.

Conclusion

This study used two field-based quasi-experiments to conduct an empirical examination of key attitudes towards networking - discomfort and motivation - and begins to uncover the underlying mechanisms (proximal outcomes) that explain network training's impact on distal

outcomes. Our comparison of motivational framing emphasizing either individual (me-focused) or collective (we-focused) training benefits, and the match or mismatch between the framing and participants' preferences, revealed an important factor for HRM researchers and practitioners to consider when studying and designing network training programs.

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Table 1

Descriptive Statistics and Correlations, Study 1

	Variable	*M*	*SD*	1	2	3	4	5
1	Networking Discomfort	3.68	1.34					
2	Networking Motivation	5.42	1.06	-0.36**				
3	Condition			-0.20	-0.08			
4	Work Experience	10.72	7.52	-0.10	-0.03	0.07		
5	Extraversion	4.27	1.41	-0.54**	0.25*	-0.03	-0.05	
6	Gender			-0.22	0.09	-0.004	-0.04	0.26*

Note: Networking discomfort and motivation are pre-training averages.
* $p < .05$; ** $p < .01$

Table 2

Results of Two-way Interaction Model Predicting Change in Networking Discomfort, Study 1

Parameters	*Estimate*	SE	*p*
Model for the Means			
Intercept	3.34	0.29	<.0001
Time	-0.19	0.29	0.53
Me-Focused Training	0.72	0.33	0.03
We-Focused Training	0.51	0.33	0.12
Time x Me-Focused Training	-0.49	0.38	0.20
Time x We-Focused Training	-0.25	0.36	0.50
Work Experience	-0.02	0.01	0.14
Extraversion	-0.54	0.08	<.0001
Gender	-0.25	0.23	0.28
Model for the Variance			
τ_{00}	0.60	0.17	<.001
σ^2	0.73	0.12	<.0001
Total R^2	0.38		
REML Model Fit	-2LL	466.95	
	AIC	470.95	
	BIC	475.74	

Note. REML Deviance Difference Test = $-2\Delta LL(1) = .63$, $p = .43$. Thus, the heterogeneous variance unstructured model does not fit better than the homogeneous variance model. Omnibus simple main effect for condition was not significant, $F(2, 75) = 2.43$, $p = .09$. Omnibus two-way interaction test was also not significant, $F(2, 68) = .84$, $p = .43$.

Table 3.

Results of Two-way Interaction Model Predicting Change in Networking Motivation, Study 1.

Parameters	*Estimate*	*SE*	*p*
Model for the Means			
Intercept	5.57	0.26	<.0001
Time	-0.42	0.29	0.15
Me-Focused Training	0.08	0.31	0.80
We-Focused Training	-0.43	0.30	0.16
Time x Me-Focused Training	0.85	0.38	0.03
Time x We-Focused Training	1.10	0.36	<.01
Work Experience	0.00	0.01	0.88
Extraversion	0.14	0.07	0.06
Gender	-0.05	0.21	0.80
Simple Effects			
Improvement for Control	-0.42	0.29	0.15
Improvement for Me-Focused Training	0.43	0.24	0.07
Improvement for We-Focused Training	0.67	0.22	<.01
Collective Improvement - Individual Improvement	0.24	0.32	0.45
Model for the Variance			
τ_{00}	0.40	0.14	0.0045
σ^2	0.73	0.12	<.0001
Total R^2	0.13		
REML Model Fit	-2LL	451.23	
	AIC	455.23	
	BIC	460.02	

Note. REML Deviance Difference Test = $-2\Delta LL(1) = .36$, $p = .55$. Thus, the heterogeneous variance unstructured model does not fit better than the homogeneous variance model. Omnibus simple main effect for condition was not significant, $F(2, 75) = 1.93$, $p = .15$. Omnibus two-way interaction test was significant, $F(2, 68) = 4.69$, $p = .01$.

Table 4

Descriptive Statistics and Correlations, Study 2.

	Variable	*M*	*SD*	1	2	3	4	5	6	7
1	Networking Discomfort	2.99	1.27							
2	Networking Motivation	5.13	1.16	-0.09						
3	Condition			-0.03	-0.01					
4	Changed Branch			-0.16	-0.07	-0.18				
5	Tenure in Months	107.52	93.95	0.40**	-0.35*	-0.10	-0.13			
6	Level	1.71	1.04	0.05	0.13	-0.19	-0.11	0.14		
7	Extraversion	4.08	1.33	-0.36*	0.14	-0.02	-0.003	-0.09	0.19	
8	Gender			-0.17	0.14	0.13	0.14	-0.26*	0.11	0.05

Note: Networking discomfort and motivation are pre-training averages.

* $p < .05$; ** $p < .01$

Table 5.

Results of Two-way Interaction Model Predicting Change in Networking Discomfort, Study 2.

Parameters	*Estimate*	*SE*	*p*
Model for the Means			
Intercept	3.80	0.29	<.0001
Time	0.13	0.27	0.62
Me-Focused Training	0.92	0.41	0.03
We-Focused Training	0.27	0.44	0.54
Individual Self Concept	0.08	0.11	0.45
Collective Self Concept	-0.15	0.18	0.40
Time x Me-Focused Training	-0.09	0.41	0.82
Time x We-Focused Training	-0.06	0.45	0.89
Changed Branch	-0.98	0.39	0.01
Tenure in Months	0.00	0.00	0.21
Level	-0.11	0.14	0.45
Extraversion	-0.28	0.12	0.02
Gender	-0.77	0.31	0.02
Model for the Variance			
σ_{12}	0.68	0.24	<.01
σ^2_{t1}	2.03	0.36	<.0001
σ^2_{t2}	1.19	0.24	<.0001
Total R^2	0.31		
REML Model Fit	-2LL	412.02	
	AIC	418.02	
	BIC	424.80	

Note. REML Deviance Difference Test = -2ΔLL(1) = 4.55, p = .03. Thus, the heterogeneous variance unstructured model does fit better than the homogeneous variance model. Omnibus simple main effect for condition was not significant, $F(2, 60) = 2.55$, p = .09. Omnibus two-way interaction test was also not significant, $F(2, 60) = .03$, p = .97.

Table 6.

Results of Two-way Interaction Model Predicting Change in Networking Motivation, Study 2.

Parameters	*Estimate*	*SE*	*p*
Model for the Means			
Intercept	5.07	0.24	<.0001
Time	0.23	0.20	0.24
Me-Focused Training	0.03	0.33	0.94
We-Focused Training	0.30	0.36	0.41
Individual Self Concept	0.19	0.10	0.07
Collective Self Concept	0.36	0.18	0.05
Time x Me-Focused Training	-0.80	0.31	0.01
Time x We-Focused Training	-0.96	0.34	0.01
Changed Branch	0.40	0.38	0.29
Tenure in Months	-0.00	0.00	0.18
Level	-0.09	0.14	0.52
Extraversion	0.04	0.11	0.70
Gender	0.05	0.30	0.88
Simple Effects			
Improvement for Control	0.23	0.20	0.24
Improvement for Me-Focused Training	-0.56	0.23	0.02
Improvement for We-Focused Training	-0.73	0.27	0.01
Collective Improvement - Individual Improvement	-0.17	0.36	0.65
Model for the Variance			
τ_{00}	0.85	0.21	<.0001
σ^2	0.49	0.1	<.0001
Total R^2	0.22		
REML Model Fit	-2LL	379.17	
	AIC	383.17	
	BIC	387.69	

Note. REML Deviance Difference Test = -2ΔLL(1) = .65, *p* = .42. Thus, the heterogeneous variance unstructured model does not fit better than the homogeneous variance model. Omnibus simple main effect for condition was not significant, $F(2, 61) = 0.37$, p = .69. Omnibus two-way interaction test was significant, $F(2, 51) = 5.44$, p = .0072.

Table 7

Three-way Interaction Model Predicting Change in Networking Discomfort, Study 2

Parameters	*Estimate*	*SE*	*p*
Model for the Means			
Intercept	3.82	0.27	<.0001
Time	0.09	0.25	0.71
Me-Focused Training	0.85	0.37	0.02
We-Focused Training	0.20	0.40	0.62
Individual Self Concept	0.16	0.19	0.41
Collective Self Concept	-0.61	0.32	0.06
Time x Me-Focused Training	-0.03	0.39	0.94
Time x We-Focused Training	0.25	0.48	0.60
Me-Focused Training x Individual Self Concept	0.18	0.28	0.52
We-Focused Training x Individual Self Concept	-0.77	0.32	0.02
Time x Collective Self Concept	0.74	0.32	0.02
Me-Focused Training x Collective Self Concept	0.44	0.44	0.32
We-Focused Training x Collective Self Concept	1.14	0.60	0.07
Time x Me-Focused Training x Individual Self Concept	0.23	0.30	0.44
Time x We-Focused Training x Individual Self Concept	0.88	0.33	0.01
Time x Me-Focused Training x Collective Self Concept	-0.93	0.46	0.05
Time x We-Focused Training x Collective Self Concept	-2.05	0.69	0.01
Changed Branch	-0.88	0.41	0.03
Tenure in Months	0.00	0.00	0.09
Level	-0.09	0.14	0.52
Extraversion	-0.24	0.12	0.05
Gender	-0.75	0.35	0.03
Simple Effects			
Improvement for We-Focused Training (for those with average levels of Collective and Individual SC)	0.35	0.41	0.40
Improvement for We-Focused Training (for those +1SD Collective SC and average Individual SC)	-0.85	0.50	< 0.10
Improvement for We-Focused Training (for those -1SD Collective SC, average Individual SC)	1.55	0.84	0.07
Improvement for We-Focused Training (for those +1SD Individual SC and average Collective SC)	1.20	0.49	0.02

Table 7, continued

Improvement for We-Focused Training (for those -1SD Individual SC and average Collective SC)	-0.50	0.57	0.39
Improvement for Me-Focused Training (for those with average levels of Collective and Individual SC)	0.06	0.30	0.84
Improvement for Me-Focused Training (for those +1SD Collective SC and average Individual SC)	-0.11	0.45	0.81
Improvement for Me-Focused Training (for those -1SD Collective SC and average Individual SC)	0.23	0.40	0.56
We-Focused Improvement - Me-Focused Improvement (for those with average levels of Collective and Individual SC)	0.28	0.51	0.58
Model for the Variance			
τ_{00}	0.76	0.25	<.01
σ^2	0.80	0.17	<.0001
Total R^2	0.41		
REML Model Fit	-2LL	400.35	
	AIC	404.35	
	BIC	408.87	

Note. SC = Self-concept. SD = Standard Deviation. REML Deviance Difference Test = $-2\Delta LL(1) = 3.29$, $p = .07$. Thus, the heterogeneous variance unstructured model does not fit better than the homogeneous variance model. Omnibus simple main effect for condition was not significant, $F(2, 56) = 2.77$, $p = .07$. Both omnibus three-way interaction terms were significant for collective and individual, $F(2, 45) = 5.10$, p = .01 and $F(2, 45) = 3.73$, $p = .03$.

Table 8

Three-way Interaction Model Predicting Change in Networking Motivation, Study 2

Parameters	*Estimate*	*SE*	*p*
Model for the Means			
Intercept	5.11	0.24	<.0001
Time	0.23	0.19	0.24
Me-Focused Training	0.03	0.33	0.93
We-Focused Training	0.23	0.35	0.52
Individual Self Concept	0.05	0.17	0.79
Collective Self Concept	0.37	0.18	0.04
Time x Me-Focused Training	-0.79	0.30	0.01
Time x We-Focused Training	-0.87	0.34	0.01
Time x Individual Self concept	0.21	0.17	0.22
Me-Focused Training x Individual Self Concept	-0.04	0.24	0.88
We-Focused Training x Individual Self Concept	0.63	0.28	0.03
Time x Me-Focused Training x Individual Self Concept	-0.07	0.23	0.76
Time x We-Focused Training x Individual Self Concept	-0.55	0.25	0.04
Changed Branch	0.34	0.38	0.37
Tenure in Months	-0.00	0.00	0.12
Level	-0.09	0.13	0.49
Extraversion	0.03	0.11	0.81
Gender	-0.03	0.32	0.93
Simple Effects			
Improvement for We-Focused Training (for those with average levels of Individual SC)	-0.64	0.27	0.02
Improvement for We-Focused Training (for those +1SD Individual SC)	-1.40	0.40	0.00
Improvement for We-Focused Training (for those -1SD Individual SC)	0.11	0.48	0.82
We-Focused Improvement – Me-Focused Improvement (for those with average levels of Individual SC)	-0.08	0.36	0.82
Model for the Variance			
τ_{00}	0.83	0.21	<.001
σ^2	0.47	0.10	<.0001
Total R^2	0.28		
REML Model Fit	-2LL	377.36	
	AIC	381.36	
	BIC	385.88	

Table 8, continued

Note. SC = Self-concept. SD = Standard Deviation. REML Deviance Difference Test = -2ΔLL(1) = 2.71, p = .10. Thus, the heterogeneous variance unstructured model does not fit better than the homogeneous variance model. Omnibus simple main effect for condition was not significant, $F(2, 57) = .33$, $p = .72$. The three-way interaction terms were significant for the individual, but not the collective, $F(2, 45) = 3.21$, $p = .0497$ and $F(2, 45) = 2.25$, $p = .12$.

Figure 1

Simple Effects for Networking Motivation Change over Time for Control, Me-focused, and We-focused Treatment, Study 1

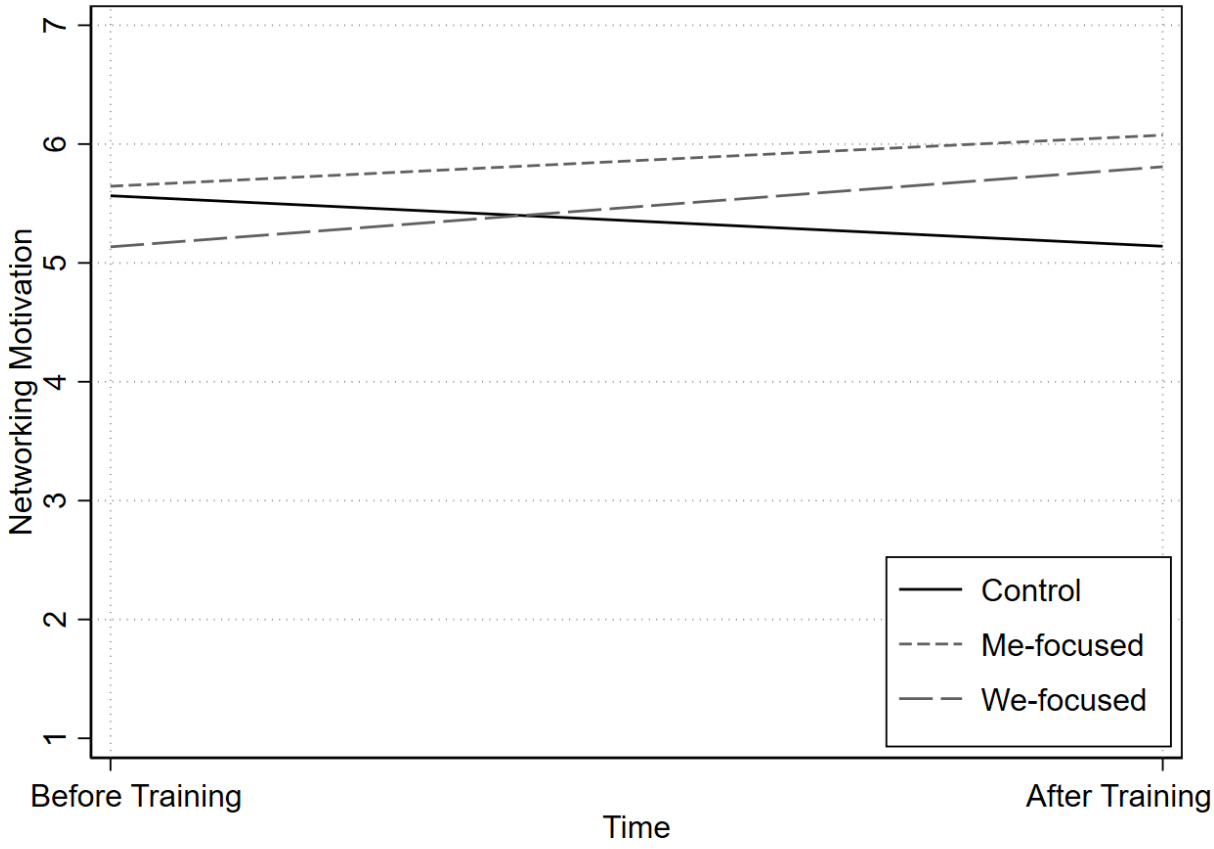


Figure 2

Simple Effects for Networking Motivation Change over Time for Control, Me-focused, and We-focused Treatment, Study 2

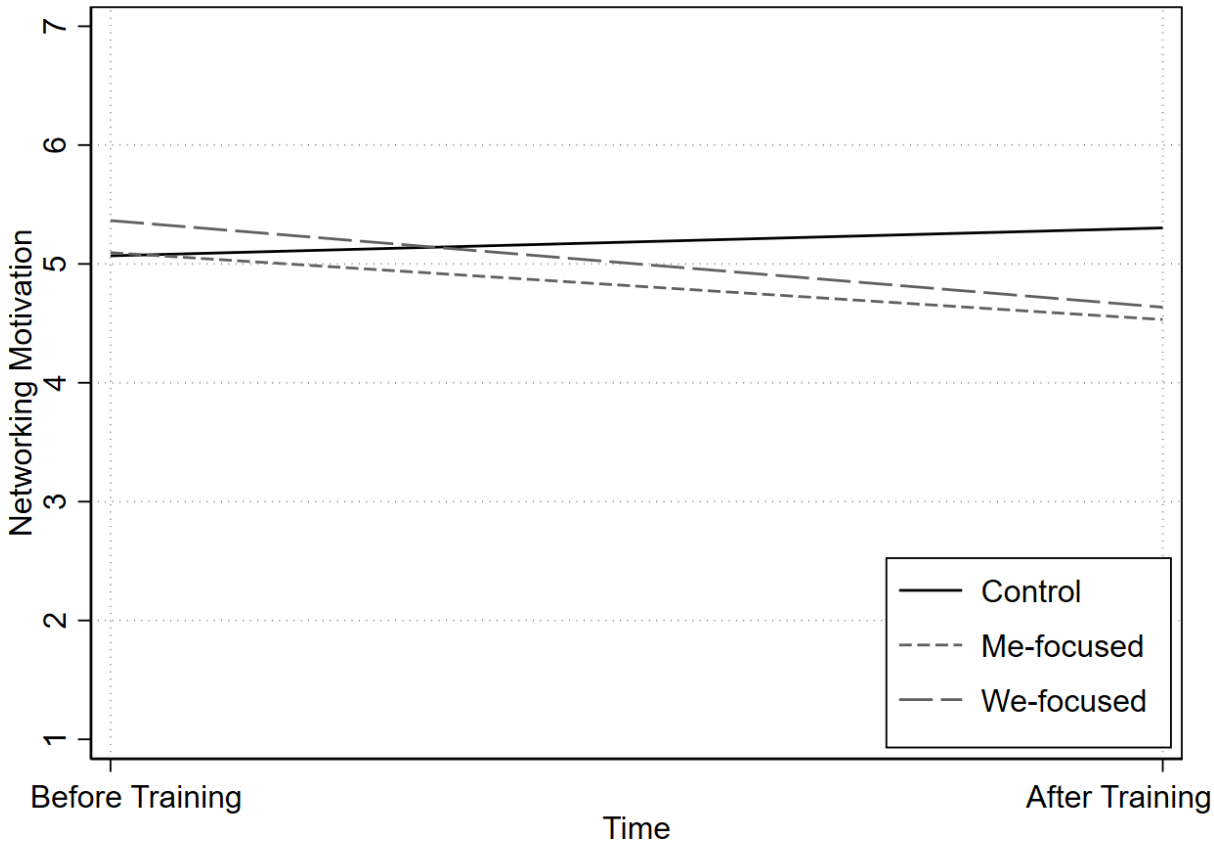


Figure 3

Simple Effects of Networking Discomfort over Time in the We-focused Condition with Varying Collective Self Concept Levels, Study 2

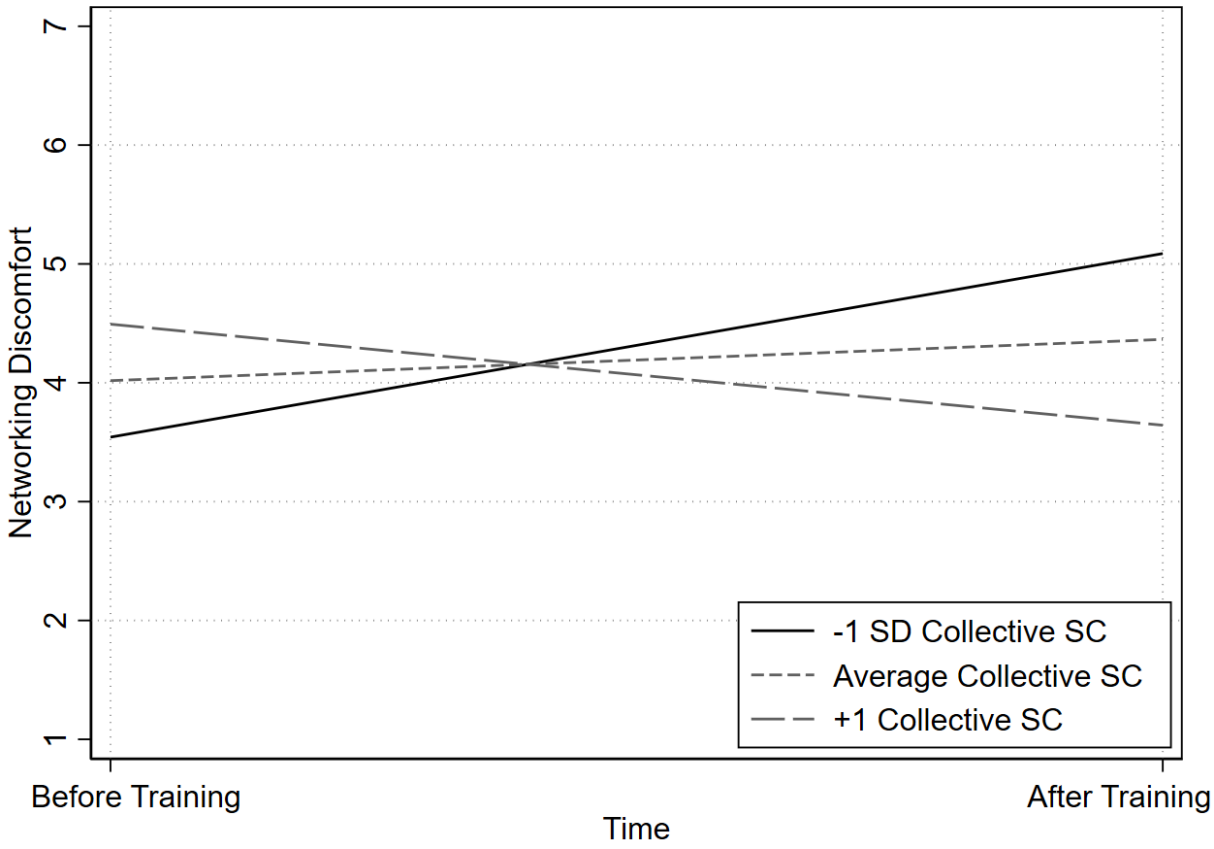


Figure 4

Simple Effects of Networking Discomfort Change over Time in the We-focused Condition with Varying Individual Self Concept Levels, Study 2

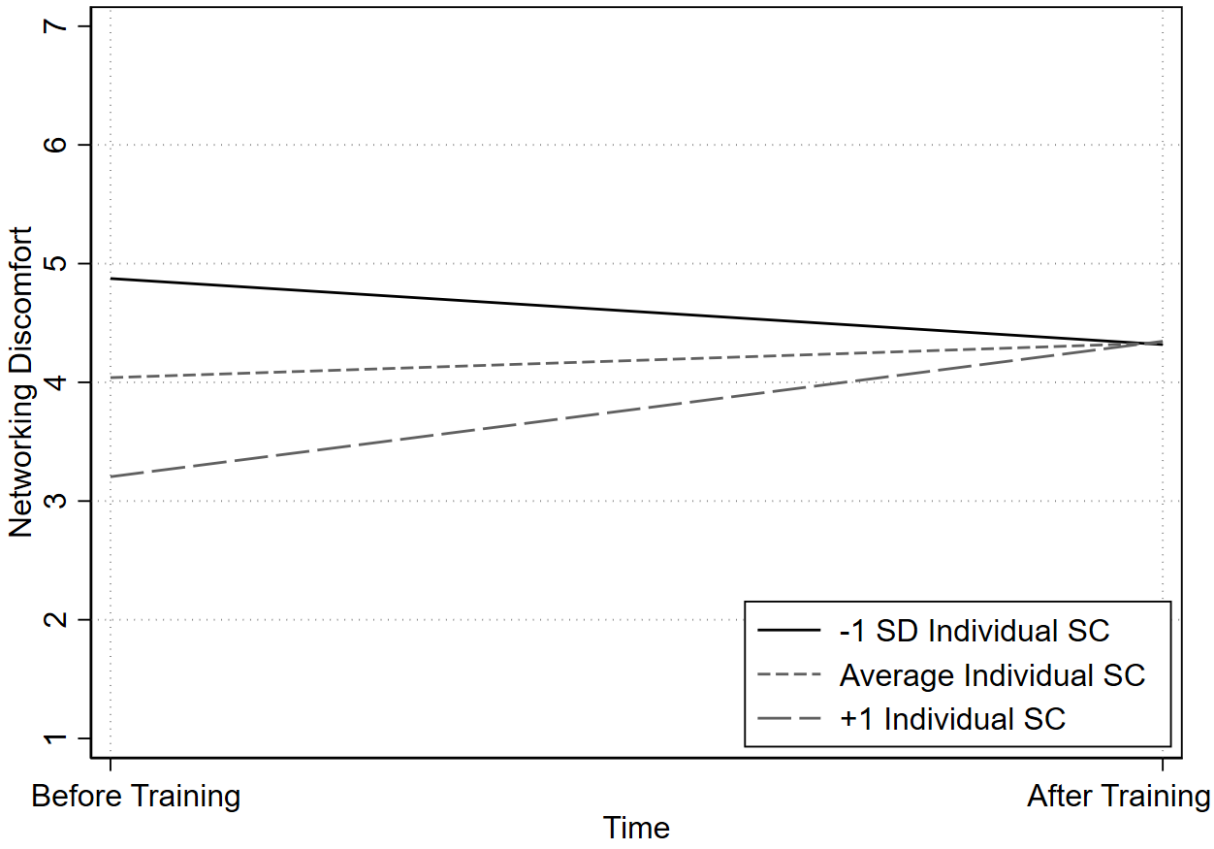


Figure 5

Simple Effects of Networking Discomfort Change over Time in the Me-focused Condition with Varying Collective Self Concept Levels, Study 2

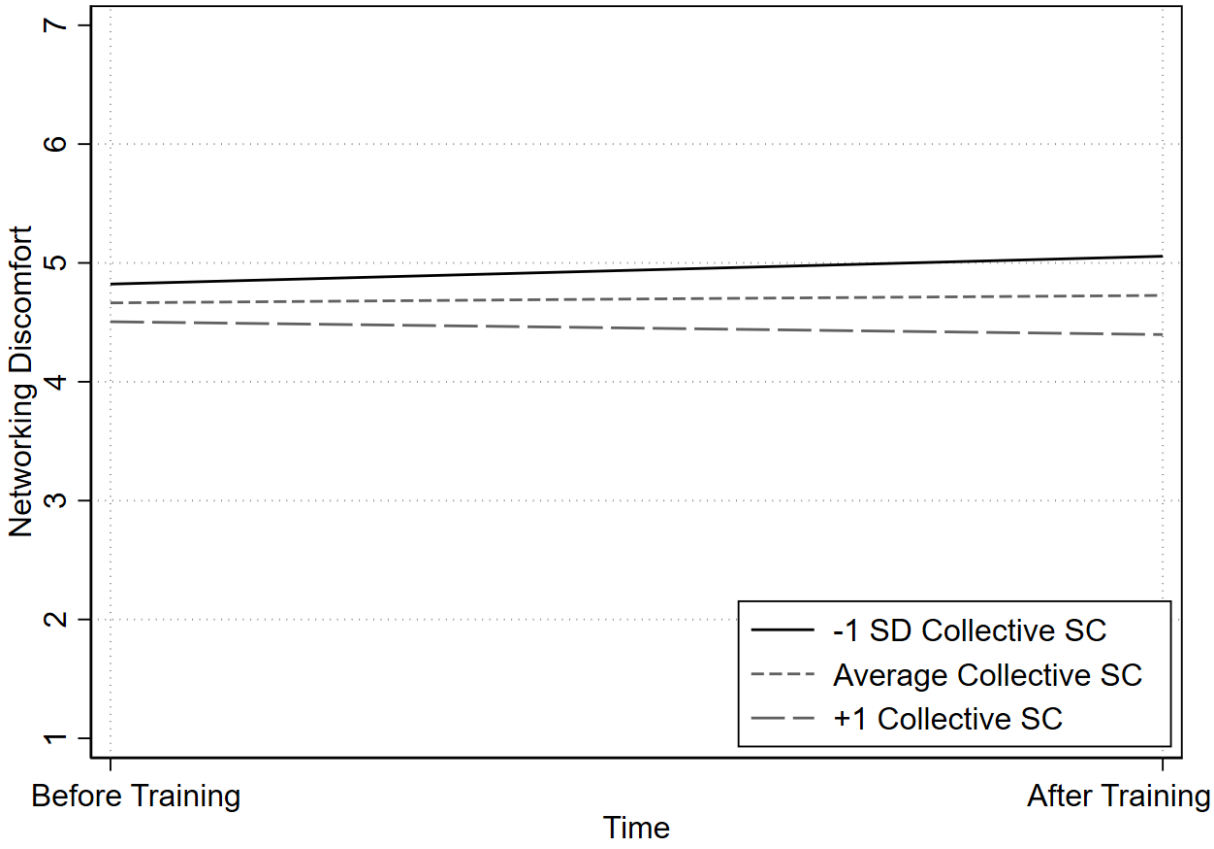
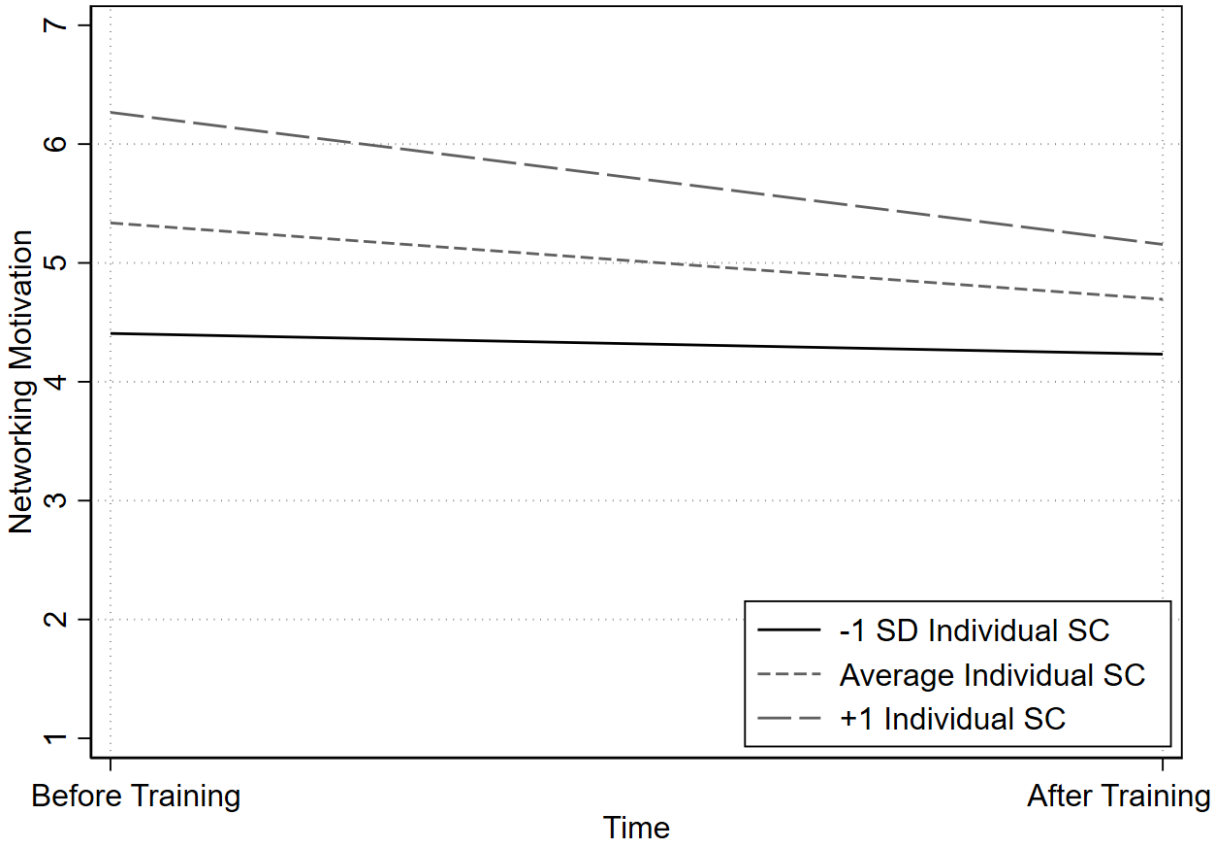


Figure 6

Simple Effects of Networking Motivation Change over Time in the We-focused Condition with Varying Individual Self Concept Levels, Study 2



Appendix A. Training Materials

The training content was identical for Study 1 and Study 2 participants. Study 1 training was delivered as recorded videos of the slide shows, narrated by the first author, who was the instructor for the course. Study 2 training was delivered in person, led by the first author. The content for the two experimental conditions varied only in the description of the benefits from effective networks: the individual in Condition 1 and the team/department/organization in Condition 2. Differences are emphasized in italics.

Component 1: Introduction to network concepts

"Goals for today

- Recognize the importance of informal networks
- Learn about benefits of effective networks
- Identify properties of effective networks
- Complete a diagnostic of your current professional network
- Evaluate the effectiveness of your current network and identify opportunities

What is a network?

- A network is made up of the relationships between individuals
- A person's position in the network provides opportunities and imposes constraints"

[Motivational Framing Manipulation]

Condition 1

"*Individual****s*** with effective networks:

- *Have early access to information & access to diverse information*
- *Are often in organization's top 20% of performers*
- *Receive early promotions, greater career mobility, better at adapting to change*
- *Are more influential, especially in complex organizations"*

Condition 2

"Teams, departments, and organizations whose members have effective networks:

- *Experience greater social support and increased trust*
- *Have access to diverse knowledge and resources that aid problem-solving*
- *Invest more time, energy, and effort in sharing knowledge*
- *Are more committed and more likely to achieve their goals"*

Component 2: Leader Network Diagnostic Exercise

The exercise was the same for both conditions. Instructor led the participants through completing the following steps: (1) identifying who is in their networks, (2) describing their networks (categorizing depth of ties and characteristics of contacts), (3) calculating network openness scores, and (4) quantifying the characteristics of their networks.

Component 3: Network Interpretation Exercise

Instructor led the participants through exercises to understand the effectiveness of their network.

[Motivational Framing Manipulation]

Condition 1

Benefits of bonding ties:

"Strong, trust-filled relationships with people

- Help you develop *your skills*
  - They know the organization well – can steer you in the right direction
  - They can provide helpful, constructive feedback
- Enable you to "borrow" their status in the organization:
  - They can vouch for you; highlight *your good work*
  - They can *champion your ideas* with those at higher levels"

Benefits of bridging ties:

"When individuals have ties that bridge across organizational boundaries, *they benefit from*:

- Greater access to outside resources
- Faster access to vital information
- Access to diverse ideas and viewpoints
- and are therefore more likely to:
- Produce creative solutions
- Have the leverage within the organization to implement those solutions"

Condition 2

Benefits of bonding ties:

"Strong, trust-filled relationships with people:

- Help you develop skills *your team needs*
  - They know the organization well – can steer you in the right direction
  - They can provide helpful, constructive feedback
- Enable you to "borrow" their status in the organization:
  - They can vouch for you; highlight the *good work of your team*
  - They can *champion the ideas of your team* with those at higher levels"

Benefits of bridging ties:

"When individuals have ties that bridge across organizational boundaries, *their teams benefit from*:

- Greater access to outside resources
- Faster access to vital information
- Access to diverse ideas and viewpoints
- and their teams are therefore more likely to:
- Produce creative solutions
- Have the leverage within the organization to implement those solutions"