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How Do Teams Become Cohesive? A Meta-Analysis of Cohesion's Antecedents

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HOW DO TEAMS BECOME COHESIVE? A META-ANALYSIS OF COHESION'S ANTECEDENTS

by

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ABSTRACT

While a wealth of research has deemed cohesion critical for team effectiveness (e.g., Mullen & Copper, 1994; Beal, et al., 2003), less emphasis has been placed on understanding how to get it. Multiple studies do examine cohesion antecedents, but these studies have not yet been integrated in either theoretical or empirical manners. The purpose of this study was thus to begin addressing this gap in the literature. I conducted a series of meta-analyses to identify and explore various antecedents of cohesion, as well as moderators of antecedent-cohesion relationships. Findings revealed a variety of cohesion antecedents. Specifically, team behaviors, emergent states, team composition variables, leadership variables, team interventions, and situational variables, as well as specific variables within each of these categories, were all explored as cohesion antecedents. In most cases, significant relationships with cohesion were demonstrated, and did not differ across levels of analysis or based on cohesion type (i.e., task cohesion, social cohesion, group pride). Hypotheses pertaining to moderators of antecedent-cohesion relationships (e.g., theoretical match between antecedent and cohesion) generally were not supported. Thus, while most antecedents appeared to be important for cohesion's formation and sustainment, some interesting differences emerged, providing insight as to where attention should be focused when enhanced cohesion is desired. Results provide a foundation for the development of more comprehensive models of team cohesion, as well as insight into the mechanisms through which cohesion can be facilitated in practice. Ultimately, findings suggest that teams can become cohesive through the presence of various processes and emergent states, team interventions, and components of their situational context.

For Peeves.

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CHAPTER ONE: INTRODUCTION

Statement of the Problem

With team-based work structures becoming the standard in today's organizations (Devine, Clayton, Phillips, Dunford, & Melner, 1999; Kozlowki & Ilgen, 2006), researchers have directed much attention toward understanding teamwork and identifying mechanisms through which team outcomes can be enhanced. One variable that has been deemed critical for team performance is team cohesion (e.g., Dion, 2000). Though defined in various ways, cohesion generally reflects some form of attraction or bond—driven by either the team's members or the team's tasks—that causes the team to remain together (Casey-Campbell & Martens, 2009). Cohesion has been studied extensively and is regarded as a key contributor to team effectiveness—it has been referred to as *the* most important construct in the study of small groups (Carron & Brawley, 2000). In support of this claim, at least six meta-analyses have been conducted, each demonstrating a positive link between cohesion and performance (Evans & Dion, 1991; Mullen & Copper, 1994; Gully, Devine, & Whitney, 1995; Carron, Colman, Wheeler, & Stevens, 2002; Beal, Cohen, Burke, & McLendon, 2003; Chiocchio & Essiembre, 2009). Beyond performance, cohesion has been linked to a variety of other important outcomes such as member satisfaction (Forrester & Tashchian, 2006), team viability (Barrick, Stewart, Neubert, & Mount, 1998), collective efficacy (Spink, 1990), and organizational citizenship behavior (Aoyagi, Cox, & McGuire, 2008), to name a few. Cleary, cohesion is important.

While its outcomes have been heavily examined, much less is known about cohesion's antecedents (Kozlowski & Ilgen, 2006; Casey-Campbell & Martens, 2009). Early

conceptualizations of cohesion shifted from the *total* field of forces (Festinger, Schacter, & Back, 1950), to the *resultant* of all forces acting on members to remain in a group (Festinger, 1950; Gross & Martin, 1952), leading to a concurrent shift in researchers' attention from cohesion's causes to its outcomes (Dion, 2000; Casey-Campbell & Martens, 2009). Such a broad conceptualization made it difficult to disentangle potential predictors of cohesion from the definition itself—*the resultant of all forces* is a catch-all term that can include any number of variables that, by definition, precede members' acts of remaining in a group. This confounded predictors of cohesion with cohesion itself, making its antecedents more difficult to study than its consequences. Though definitions of cohesion have since evolved, the relationship between cohesion and performance has remained at the forefront of cohesion research, with less emphasis being placed on understanding how cohesion develops. In spite of this trend, a variety of empirical studies have indeed examined antecedents of cohesion. In a recent qualitative review of a subset of the cohesion literature, for example, cohesion was conceptualized as an outcome of another variable in 337 of the 1,020 relationships that were examined (Dietz, Grossman, Oglesby, Coultas, Lazzara, Benishek, et al., 2014). Cleary, studies examining cohesion this way are still in the minority, but there is likely sufficient data to be able to begin understanding *something* about the variables that contribute to team cohesion. However, such work has seemingly gone largely unnoticed, perhaps because it is not linked together by a common theoretical framework, and because findings have not been integrated in a manner that allows for clear conclusions to be drawn about how cohesion can be developed and maintained. Essentially, at the extant stage of the science, we know that cohesion is important, but we don't necessarily know how to get it.

Clearly, this lack of understanding represents a significant gap in the groups and teams literature that needs to be addressed. Research is needed to synthesize what we do know about cohesion's antecedents and to use such information to advance a more thoroughly developed input-mediator-output-input (IMOI; Ilgen, Hollenbeck, Johnson, & Jundt, 2005) model of cohesion that is less biased toward the criterion component of the IMOI framework. Beyond this gap in research, however, the lack of attention paid to the antecedents of cohesion also presents a critical gap in practice. Not only are teams being increasingly relied upon in organizations, but many of those teams face unique conditions that require strong cohesion, perhaps even more so than traditional teams, in order to be effective. Virtual teams, for example, are increasing in prevalence, yet they pose challenges to team functioning due to their decreased availability of social cues and synchronous interactions. Cohesion has been identified as a variable that is critical to the effectiveness of such teams (Lin, Standing, & Liu, 2008), yet researchers and practitioners aren't yet clear on how to facilitate it. Indeed, "building cohesion" has even been named as one of the five main challenges to virtual team success (Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002). Additionally, NASA has recently described building and maintaining cohesion as major concerns for future long-duration spaceflight missions (Schmidt, Keeton, Slack, Leveton, & Shea, 2009). Crews going to Mars, for example, will face unique challenges, such as extreme confinement, isolation, and stress over long periods of time, likely making cohesion critical for their success, and even survival. Emphasizing these critical gaps in research and practice, Kozlowki and Ilgen (2006, p. 89) conducted a review of the *groups and teams* literature and concluded that teams with higher cohesion will be more effective, but that "the research base to help identify techniques for enhancing group cohesion is as yet not

sufficiently developed to warrant specific recommendations for how to develop [this] desirable emergent [state]," further noting that "this is an obvious target for research."

Purpose of the Current Study

The purpose of this effort was thus to begin addressing these gaps by meta-analytically examining variables that have been conceptualized as antecedents of team cohesion. As mentioned previously, at least six meta-analyses on cohesion have been conducted, yet none of them have examined cohesion itself as the criterion of interest, instead, focusing on its relationship with team performance. Further, while cohesion, as a criterion, has been examined tangentially in a few existing meta-analyses that primarily explored performance (i.e., Webber and Donahue (2001) examined the link between diversity and cohesion; Mesmer-Magnus & DeChurch (2009) examined the link between information-sharing and cohesion; DeChurch & Mesmer-Magnus (2010) examined the link between team cognition and cohesion), these represent but a small handful of the various antecedents that may be critical for the development and maintenance of cohesion. Specifically, diversity, information-sharing, and team cognition can each be considered single exemplars of team composition, team behaviors, and emergent states, respectively. Many more variables of each type, however, have been examined in the literature and may be critical for cohesion. In addition to these exemplars, I more fully explore each of the categories of variables they correspond to (e.g., emergent states), as well as other categories of variables that have not yet been examined meta-analytically (e.g., leadership variables, team interventions). This meta-analysis thus focuses on expanding the front end of the IMOI model, serving to synthesize research that does examine cohesion's inputs, and ultimately, to allow for the formation of initial, empirically-driven conclusions about the variables that are

associated with higher levels of cohesion, as well as those that are potential moderators of the antecedent-cohesion relationships. In turn, I am able to draw conclusions about which variables are most likely to be associated with higher levels of team cohesion (e.g., strong leadership is associated with high cohesion).

Because a variety of antecedents have been empirically examined, it was necessary to group them into categories to ensure that there were a sufficient number of independent samples per antecedent and to allow for broader conclusions to be drawn. For example, variables such as coordination and back-up behavior were grouped together into a *team processes* category. However, more fine-grained coding was still conducted to allow for more specific analyses wherever possible. Moderators of the relationships between the various antecedent categories and cohesion were also examined. For example, variables such as team size and time lifespan were considered, and importantly, the different conceptualizations and dimensions of cohesion (e.g., social, task, group pride) were coded for and examined as potential moderators. This series of analyses serves to synthesize research relevant to cohesion's inputs, inform the development of more complete theoretical models of cohesion, and identify more specific research gaps that remain to be addressed, marking important steps toward understanding how cohesion can be developed and maintained. Findings have the potential to greatly advance our understanding of the cohesion construct, addressing key gaps in both research and practice.

CHAPTER TWO: LITERATURE REVIEW

Cohesion is one of the most widely studied constructs in the groups and teams literature, with research spanning a variety of disciplines (e.g., industrial-organizational psychology, social psychology, sport psychology, military psychology, sociology, anthropology, political science; Carron & Brawley, 2000; Dion, 2000). Perhaps because of this far reaching interest, however, it also one of the most disagreed upon constructs—numerous conceptualizations and operationalizations have been put forth, with little consistency or integration across approaches and findings. Scholars generally agree that cohesion is important, but historically, there has been a considerable lack of consistency and agreement about what it means and how it should be analyzed (Casey-Campbell & Martens, 2009). Below, I provide a brief review of the various approaches to defining and measuring cohesion that have been utilized in the literature.

Uni-Dimensional Approaches

Early researchers conceptualized cohesion as a uni-dimensional construct, drawing heavily from scientific and colloquial definitions of cohesion that described it as a state of bonding or sticking together (Dion, 2000). In a historical account of the cohesion literature, for example, Dion (2000) cited Kurt Lewin as the first theorist to bring the idea of cohesiveness to the realm of social psychology, describing it as a *willingness to stick together*. Lewin further discussed cohesion as the *forces of attraction that keep group members together*, laying the foundation for later "field of forces," multi-dimensional conceptualizations that will be discussed below. Similar to these ideas, Seashore (1954; p. 11) offered another approach, defining cohesion as group members' "attraction to the group or resistance to leaving." On the basis of

this definition, Seashore developed a measure that prompted group members to compare their work group to similar work groups, and to rate their desire, or attraction to remaining a member of that group (Casey-Campbell & Martens, 2009). In 2009, Casey-Campbell and Martens reviewed the cohesion literature, noting the widespread use of Seashore's measure—they described it as the most frequently cited and used conceptualization, further stating that the approach has been utilized and adapted to assess cohesion in a number of studies.

In an extension of Seashore's work, Van Bergen and Koekebakker (1959) offered a similar definition of cohesion, but aimed to account for the group processes that attract members to remain in a group as opposed to just the individual processes that previous work had considered. Specifically, the authors still described cohesion as an attraction to the group, but such attraction was conceptualized as the interaction of group members' motives, rather than solely individual-level motives, that can cause group members to either leave or remain in the group (Casey-Campbell & Martens, 2009). Van Bergen and Koekebakker's (1959) approach aimed to address an important limitation of Seashore's and similar definitions—because they focused on individuals' desire to remain in a group, they relegated cohesion to an individual-level construct, failing to capture important components of the inherently group-level property. Uni-dimensional approaches that describe cohesion as a sum of individuals' perceptions have thus been criticized for not considering the group as a whole (Casey-Campbell & Martens, 2009).

Multi-Dimensional Approaches

Field of Forces Approaches

Around the same time that unitary approaches were being developed, other researchers argued that cohesion should be conceptualized as more than a uni-dimensional construct (Casey-Campbell & Martens, 2009). As noted earlier, these approaches view cohesion as a *field of forces* rather than a single force (e.g., attraction to the group), suggesting, by definition, that cohesion is comprised of multiple dimensions. Festinger and colleagues (1950, p. 37), for example, described cohesion as "the total field of forces that act on members to remain in the group," a definition that came to be highly influential among cohesion scholars (Dion, 2000; Casey-Campbell & Martens, 2009). The authors further conceptualized two types of forces that can comprise cohesion—the attractiveness of the group, and the capacity of the group to facilitate goals for its members—similar to later distinctions between social and task cohesion (Dion, 2000). While this approach was appealing, it ultimately became a target of criticism. In their well-known research on housing units from which the conceptualization originated, Festinger and his team (1950) did not operationalize cohesion in a manner that was consistent with its definition—instead of assessing the forces that caused members to remain in a group, they used sociometric methods to assess in-group/out-group choices that reflected the proportion of people that participants' indicated that they saw the most socially that were from their own, versus another housing unit. Additionally, the *total* field of forces component of their definition began to come under question. In a discussion of Festinger and colleagues' (1950) work, for example, Gross and Martin (1952) asserted that if cohesion is a sum of multiple forces, than each of these

forces must be conceptualized and measured, requiring clear specification of the various forces thought to comprise cohesion, a notably difficult undertaking. Thus, they suggested that the conceptualization of cohesion be changed from the *total*, to the *resultant* field of forces acting on members to remain in a group (Gross & Martin, 1952; Casey-Campbell & Martens, 2009). Interestingly, Festinger (1950) had already argued for the same shift two years earlier, but his suggestion had not yet gained traction in the literature (Casey-Campbell & Martens, 2009).

On the basis of this shifted definition, Gross and Martin (1952) argued that cohesion could be evaluated by assessing a group's *resistance to disruption*. While their approach gained attention as a way of conceptualizing cohesion, it wasn't operationalized until years later in a set of studies where team members were prompted to respond to hypothetical disruptive events as a means of assessing their resistance (Brawley, Carron, & Widmeyer, 1988). However, in line with their criticism of the inconsistency between Festinger and colleagues' (1950) definition and operationalization of cohesion (Gross & Martin, 1952), they also argued that cohesion could be assessed by simply asking members about it directly (Dion, 2000). The Gross Cohesiveness Questionnaire (GCQ) was developed, and later adapted to do just that. The scale includes items such as, "how attractive do you find the activities in which you participate as a member of your group," and "I feel that working with the particular group will enable me to attain my personal goals for which I sought the group," capturing some of the forces thought to act on members to remain in a group—attraction to the group, and the capacity of the group to facilitate goals for its members (Festinger et al., 1950; Stokes, 1983; Dion, 2000). This came to be another highly influential approach in the literature—it was once referred to as the most widely used cohesion metric (Stokes, 1983), and is still the focus of more recent research (Dion, 2000).

Two-Dimensional Approaches

While the *field of forces* approaches to cohesion served to begin establishing cohesion as a multi-dimensional construct, they did little to specify what such dimensions are. Later work, however, did result in two-dimensional approaches that are more simplified and clear. As noted previously, one of the earliest distinctions between cohesion dimensions was that between *attraction to the group* and *means control*, the degree to which the group mediates goals for its members (Festinger, et al., 1950). These concepts set the stage for what have become perhaps the most prominent dimensions in the literature, social and task cohesion, respectively. Clear distinctions between these cohesion types were being made as early as 1969 (Mickalachki, 1969), and have continued to receive a great deal of research attention ever since, with much of the work demonstrating support for the notion of separate dimensions. Zaccaro and Lowe (1988), for example, found that task and social cohesion exhibited differential effects on performance within the context of an additive task (i.e., group performance was determined by summing individual performance; Steiner, 1972)—task cohesion facilitated performance while social cohesion had little effect. In contrast, in a disjunctive task that required members to interact with one another, Zaccaro and McCoy (1988) found that performance was highest in groups in which high degrees of both social and task cohesion were present. In another study, task cohesion demonstrated stronger relationships with a variety of task-relevant criteria (i.e., performance processes, role uncertainty, absenteeism, individual performance) than did social cohesion (Zaccaro, 1991). Similarly, other work has shown that social cohesion can have a detrimental influence on groupthink and decision-making quality, while task cohesion can have a facilitating effect (Bernthal & Insko, 1993; Mullen, Anthony, Salas, & Driskell, 1994). A variety of studies,

including meta-analyses, have demonstrated additional support for social and task cohesion as distinct dimensions (e.g., Beal, et al., 2003; Chiocchio & Essiembre, 2009).

Bollen and Hoyle (1990) proposed another two-dimensional model of cohesion, comprised of the dimensions belongingness and morale. Specifically, they distinguished subjective, or perceived cohesion from objective cohesion, defining it has "an individual's sense of belonging to a particular group and his or her feelings of morale associated with membership in the group" (Bollen & Hoyle, 1990; p. 492). While the *belongingness* dimension is grounded in both group members' cognitive appraisals of the degree to which they belong in a group and their affective responses to such appraisals, the *morale* dimension primarily reflects members' affective reactions derived from being members of the group (Dion, 2000). The authors developed the Perceived Cohesion Scale (PCS) to operationalize their model and have used it to generate support for the two dimensions. For example, empirical data has corroborated the two-factor structure and has demonstrated relationships between each dimension and other variables theory suggests they would be related to in a variety of samples (Bollen & Hoyle, 1990; Hoyle & Crawford, 1994; Dion, 2000). Thus, Bollen and Hoyle's two-factor model of perceived cohesion represents another viable approach to conceptualizing and measuring group cohesion. However, belongingness and morale are essentially two components of social cohesion—they fail to account for task cohesion, suggesting that it may be an incomplete representation of the cohesion construct.

A final two-dimensional model of cohesion that is common in the literature involves the direction in which cohesion develops. Specifically, the military has a tradition of distinguishing between vertical cohesion, that between the leader and the subordinates of a group, and

horizontal cohesion, that between group members of the same positional status (Griffith, 1988; Bliese & Halverson, 1996; Dion, 2000). While horizontal cohesion is essentially the same as prior conceptualizations of social cohesion, vertical cohesion encompasses group members' perceptions of the degree to which their leader is competent and considerate, as well as the importance of those qualities for fostering cohesion within the group (Dion, 2000). In an empirical study, Bliese and Halverson (1996) found some support for this two-dimensional model. The measures they used showed acceptable internal consistencies, confirmatory factor analyses demonstrated distinct dimensions, and each dimension correlated positively with well-being, a construct that could be expected to relate to cohesion in theory. Additionally, the authors found that the bulk of the relationship between cohesion and well-being could be attributed to individual-, rather than group-level factors, suggesting that this approach may be subject to the same criticism as some of the earlier conceptualizations of cohesion that reduce cohesion to an individual-level construct although it is inherently group-level. Beyond that, it seemingly assesses both social and task cohesion within each dimension, which may be problematic since prior work shows that the two types of cohesion can have differential relationships with important outcomes (e.g., Beal, et al., 2003), and it has not between studied extensively outside of the military domain. Thus, vertical and horizontal cohesion do show some promise as a viable approach to understanding cohesion, but they currently present some important limitations.

Multi-Dimensional Approaches

Group Environment Questionnaire

Although two-dimensional approaches have greatly expanded the cohesion construct, many of them fall short in the sense that they don't capture both social and task cohesion, or they don't evaluate cohesion at both the individual and the team level of analysis. To address these shortcomings, Carron, Widmeyer, and Brawley (1985) put forth an integrated, multi-dimensional model of cohesion, and on the basis of this model, developed a theory-driven measure (i.e., the Group Environment Questionnaire, GEQ) that they have been using to empirically examine cohesion within the realm of sports teams for over 20 years (Casey-Campbell & Martens, 2009). Carron (1982, p. 124) had previously operationalized cohesion as "a dynamic process that is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives," a definition that did come to be influential, particularly within the sports psychology literature. However, the model he later developed with his colleagues (Carron, et al., 1985) offered a further developed, more specific approach that enabled researchers to better understand the variables that presumably resulted in group members remaining together.

Consistent with various existing approaches, their conceptual model is comprised of four overarching categories: group, individual, task, and social. They designed the GEQ to capture the intersections of these categories, labeling them *group integration-task (GI-T), group integration-social (GI-S), individual attractions to the group-task (ATG-T)*, and *individual attractions to the group-social (ATG-S)*. While *group integration* represents the member's perception of the closeness, similarity, and bonding within the group as a whole, *individual attractions to the*

group is essentially the interactions of the various motives influencing the individual to remain in the group. In addition, the *task* component represents a general orientation toward achieving the group's goals and objectives, while the *social* category is conceptualized as a general orientation toward developing and maintaining social relationships within the group. In line with these constructs, the GEQ contains four subscales: GI-T, GI-S, ATG-T, and ATG-S. The instrument was thus designed to produce four different scores—one for each category.

More specifically, the *group integration-task* sub-scale, consisting of five items, assesses team members' feelings about the similarity, closeness, and bonding within the team as a whole, around the group's task (Carron, et al., 1985). An example item is, "Our team is united in trying to reach its goals for performance." In contrast, *group-integration-social* is assessed by four items, which represent team members' perceptions of the similarity, closeness, and bonding within the team as a whole, around the group as a social unit. An example item is, "Our team would like to spend time together in the off-season." The *individual attractions to the group-task* sub-scale, containing four items, measures the individual team member's attraction to the group task. An example item is, "I am not happy with the amount of playing time I get." Finally, *individual attractions to the group-social*, assessed by five items, captures individual team member's feelings about his or her personal acceptance, and social interaction with the group. An example item is, "Some of my best friends are on this team."

The GEQ has been used extensively in research on sports teams, both in empirical investigations, and in numerous validation studies. It has also been adapted for use in other types of groups such as musicians (Dyce & Cornell, 1996), exercise groups (Blanchard, Poon, Rodgers, & Pinel, 2000), military samples (Ahronson & Cameron, 2007), and work teams

(Carless & De Paola, 2000). The psychometric properties of the GEQ have been examined more heavily than perhaps any other measure of cohesion—both the original and adapted versions of the scale have undergone various investigations of validity, reliability, and stability. While the results of such studies have generally been favorable, the scale has also been criticized, as many researchers have found support for a three-factor model rather than the four dimensions described above (e.g., Carless & De Paola, 2000; Dyce & Cornell, 1996). The authors of the GEQ have since responded to these criticisms, pointing out that the studies that found evidence for three factors did not apply the measure to sports teams, the population for which the instrument was developed (Carron & Brawley, 2000). The authors argued that these studies did not carefully consider the nature, or structure, of cohesion in the contexts in which they applied the GEQ, and therefore were not adequately designed to measure cohesion. Overall, the literature thus suggests that the GEQ is generally regarded as a valid, moderately reliable measure of cohesion in the context of sports teams, but the appropriateness of applying it to other domains is less clear.

The Three-Dimensional Approach

While the four dimensions associated with the GEQ have become somewhat of a gold standard within the sports psychology literature, they have not been utilized quite as extensively by *groups and teams* researchers. Instead, research in recent years has adopted social cohesion, task cohesion, and group pride as "the three main components of cohesion" (Beal, et al., 2003; p. 989). In their early meta-analysis, Mullen & Copper (1994) examined these dimensions, but concluded that the effect of cohesion on performance was driven primarily by task cohesion, and less so by social cohesion and group pride. Nearly ten years later, however, Beal and colleagues

(2003) reassessed these relationships using additional research and more sophisticated statistical techniques and found that each dimension exhibited significant, independent relationships with performance variables. Recently, Thayer, Gregory, Grossman, and Burke (2014) found support for a three-factor model of cohesion within a large military sample. Specifically, a higher order three-factor model in which social cohesion, task cohesion, and group pride were examined as components of a higher order cohesion construct fit better than a three-factor model (each dimension as a separate construct) or a one-factor model (one cohesion construct with no distinction between dimensions). Thus, while group pride is studied less frequently than the other dimensions, three-factor models of cohesion have garnered support in the literature, and the three dimensions are often recognized as the main components of team cohesion.

Antecedents of Cohesion

Considering its breadth, cohesion is likely to be influenced by a wide range of antecedent variables. The *groups and teams* literature has identified various constructs that play a role in the team effectiveness system (e.g., Kozlowski & Bell, 2003; Ilgen, et al., 2005; Cannon-Bowers, 2011) many of which are likely relevant to cohesion specifically. Early team research relied upon the input-process-outcome (I-P-O) framework (McGrath, 1964; Hackman, 1987) to categorize these variables, where inputs are conceptualized as antecedents that facilitate or hinder team processes, team processes are member interactions that transform inputs into outcomes, and outcomes are valued results of the team's activities (Mathieu, Maynard, Rapp, & Gilson, 2008). While inputs can include team member characteristics (e.g., personality), team-level factors (e.g., task structure), and contextual factors (e.g., organizational design), team processes generally

encompass specific task-related behaviors (e.g., coordination), and outcomes may include both performance (e.g., quantity) and team member affect (e.g., satisfaction).

The I-P-O framework has served as a valuable foundation for decades of research; however, more recent models have aimed to address some of its shortcomings. For example, a major criticism is that "many of the meditational factors that intervene and transmit the influence of inputs to outcomes are not processes" (Ilgen, et al., 2005; p. 520). Rather, many mediating mechanisms do not involve team member actions, as team processes do, but instead involve cognitive, motivational, and affective states, referred to by Marks, Mathieu, and Zaccaro (2001), as well as subsequent researchers as *emergent states*. Other drawbacks of the I-P-O framework involve the sequencing and nature of the relationships between construct types. Specifically, the framework implies a single linear path that proceeds from one construct type (I, P, or O) to the next and then concludes (Ilgen, et al., 2005). However, teams research has since expanded to include the idea of a feedback loop, where outcomes loop back to influence initial inputs, allowing for a number of I-P-O cycles to occur over the course of task completion (Marks, et al., 2001). Additionally, research now suggests more than just a linear path from one construct type to the next, demonstrating conditional relationships, or interactions, between constructs of various types (e.g., inputs and processes; processes and processes; processes and emergent states; inputs and emergent states) (Ilgen, et al., 2005). Thus, teams researchers have since adopted a modified version of the I-P-O framework – the IMOI (input-mediator-output-input) model (Ilgen, et al, 2005) – that addresses these criticisms. The "P" has been changed to an "M" to encompass both team processes and emergent states in a broader *mediator* category. An additional "I" has been placed at the end to depict the notion of a causal feedback cycle. Finally,

the hyphens between letters have been removed to account for the notion that links between variables are not limited to those that are linear or additive, but also can include those that are nonlinear or conditional.

One implication of the IMOI model is that team processes and emergent states, hereby referred to as *mediators* when discussed in combination, can be influenced by other mediators, not just traditional inputs. Indeed, research has shown that cohesion, generally considered a mediator, can be impacted by a number of variables that are also team mediators. For example, team processes, or behaviors, such as communication and coordination have exhibited important relationships with cohesion in the literature (e.g., Sullivan & Short, 2011; Temkin-Greener, Gross, Kunitz & Mukamel, 2004). Such processes likely contribute to the emergence of cohesion by enabling members to demonstrate their level of commitment to the team through their actions and by creating a collaborative atmosphere. Communication/information-sharing, for instance, has shown consistent links, particularly with task cohesion. In the sports domain, researchers have distinguished between four dimensions of communication: distinctiveness, acceptance, positive conflict, and negative conflict (Sullivan & Feltz, 2003; Sullivan & Short, 2011). Distinctiveness and acceptance refer to the exchange of information pertaining to group members' shared commitment and mutual support; positive and negative conflict describe the ways in which members communicate about and manage their disagreements and conflicts. While acceptance, distinctiveness, and positive conflict have each demonstrated positive relationships with task cohesion, negative conflict, essentially a lack of appropriate communication, has shown a negative relationship (Sullivan & Feltz, 2003; Sullivan & Short, 2011). Similarly, Holt and Sparkes (2001) found that information-sharing that was constructive

and encouraging was associated with a more positive task environment and higher task cohesion. In contrast, negative interactions, such as arguments and unconstructive feedback, again indicative of a lack of proper communication, were associated with reduced task cohesion. Support for the role of communication/information-sharing in developing cohesion has also been found in more traditional work settings; in a meta-analysis of the organizational literature, Mesmer-Magnus and DeChurch (2009) found a positive relationship between information-sharing and cohesion. Communication/information-sharing likely enhances cohesion by signaling a shared commitment to the team and enabling both collaborative and social relationships to develop.

Workload sharing, the extent to which team members effectively and equitably allocate the teams' tasks (Erez, LePine, & Elms, 2002), is another team behavior that will likely exert an influence on cohesion. Workload sharing has been described as a form of implicit coordination (Vashdi, Bamberger, & Erez, 2013), as it requires team members to anticipate each other's task demands, actions, and needs, as well as to dynamically adapt their behavior in accordance with these variables (Rico, Sanchez-Manzanares, & Gibson, 2008). To effectively engage in workload sharing, then, team members will need to exert continuous monitoring and effort, behaviors that can communicate to fellow members that they are committed to the team's tasks. When all team members engage in these behaviors, a shared sense of commitment will likely emerge, and feelings of inequitable work distribution and resentment will be reduced, contributing to the development of cohesion. Indeed, several studies have demonstrated such a relationship. Barrick, Stewart, Neubert, & Mount (1998), for example, found a positive relationship between workload sharing and cohesion in a field sample of 51 work teams.

Similarly, Carless and DePaola (2000) found that workload sharing correlated with both task cohesion, social cohesion, and a third cohesion dimension, they termed individual attraction to the group. While workload sharing is probably most relevant to task cohesion, other studies, too, have demonstrated its relationship with both task and social cohesion (e.g., Forrester and Tashchian, 2004).

Related behaviors, such as cooperation, are also likely to be important cohesion antecedents. Cooperation has been defined as "the willful contribution of personal efforts to the completion of interdependent jobs" (Wagner, 1995). This involves a motivational component, where members willfully contribute because they are motivated to accomplish the team's objective, likely contributing to the shared attraction and commitment characteristic of cohesion. Engaging in cooperation may signal members' commitment and enable key team processes to run more smoothly. Consistent with this, several studies have demonstrated a link between cooperation and cohesion (e.g., West, Patera, & Carsten, 2009; Wang, Chen, Lin, & Hsu, 2010).

Not all cohesion antecedents are expected to exert a positive influence, however. Specifically, conflict is one process that is likely to demonstrate negative relationships with cohesion. Conflict has been defined as "the process resulting from tension between team members because of real or perceived differences" (De Dreu & Weingart, 2003, pg. 741). Conflict can be derived from social-relevant differences (e.g., political preference, values, personal taste), referred to as relationship conflict, or from task-relevant differences (e.g., disagreements about policies and procedures or the distribution of resources), referred to as task conflict. While relationship conflict is often thought to be negative, and task conflict potentially positive in relation to performance (e.g., de Wit, Greer, & Jehn, 2012), I expect that both types

will be negative in relation to cohesion. Conflict can make interacting with team members a negative experience, driving a rift between members, and potentially disrupting shared bonds among them. Additionally, it may detract from team processes, rendering taskwork less attractive to team members. Essentially, conflict can introduce a negative element into the team experience, potentially reducing the shared attraction among team members as well as the desire to remain with the group.

At a broader level, the taxonomy of team process put forth by Marks and colleagues (2001), and since widely studied by *teams* researchers, are also likely to play a prominent role in the emergence and maintenance of team cohesion. Specifically, the authors delineated three categories of processes deemed critical for team effectiveness – transition processes, action processes, and interpersonal processes. Transition processes are defined as, "periods of time when teams focus primarily on evaluation and/or planning activities to guide their accomplishment of a team goal or objective" (pg. 364). Such actions can drive cohesion by enabling team members to exert an influence, or to have a say in the way that tasks will be completed, and to jointly address the team's strengths and weaknesses. The more each team member is involved in planning and evaluating the team's activities, arguably, the more they will be committed to them, enabling a shared attraction and commitment to form. Action processes, in contrast, involve "periods of time when teams conduct activities leading directly to goal accomplishment" (pg. 366). These involve behaviors such as monitoring progress toward goals, providing backup when needed, and coordinating with one another to accomplish team objectives. Actions processes are likely central to the development of cohesion, particularly task cohesion. Being some of the primary mechanisms through which taskwork is accomplished, the

degree to which they are performed, and done so well could majorly influence the extent to which team members remain attracted and committed to performing the task – failure to engage in action processes effectively can likely make the task difficult and frustrating. Underlying each of these process types are interpersonal processes, "processes teams use to manage interpersonal relationships" (pg. 368). This involves such things as managing conflict and team affect, and building confidence and motivation among team members. Clearly, the maintenance of interpersonal relationships is going to be critical for cohesion, particularly social cohesion. Such processes can allow for social bonds to develop among team members, and can enable task processes to run more smoothly – Marks and colleagues (2001) describe note that they "lay the foundation for the effectiveness of other processes" (pg. 368). Thus, they can contribute to team members' shared attraction and bonding in relation to both the team's tasks and its members.

Various transition, action, and interpersonal processes have, in fact, shown relationships with cohesion in the literature. Temkin-Greener and colleagues (2004), for example, found a significant, positive relationship between coordination and cohesion in a study of interdisciplinary teams in healthcare settings. Other work has shown that interpersonal processes, such as sharing personal stories with one another (Dunn & Holt, 2004) and engaging in social activities (e.g., having coffee or lunch as a team), or sharing life events with each other (e.g., birthdays, marriages) (Brown, Lewis, Ellis, Beckhoff, Stewart, Freeman, et al., 2010) have a positive impact on cohesion. Importantly, a previous meta-analysis (LePine, Piccolo, Jackson, Mathieu, & Saul 2008) that explored some of cohesion's antecedents specifically examined the influence of the transition, action, and interpersonal processes put forth by Marks and colleagues (2001). Results revealed strong positive relationships between each process and team cohesion

(ρ = .60, .61, and .53 for transition processes, action processes, and interpersonal processes, respectively). For the reasons outline above, I thus hypothesize the following:

Hypothesis 1a-h: team behaviors (i.e., (a) communication/information-sharing, (b) workload sharing, (c) cooperation, (d) transition processes, (e) action processes, and (f) interpersonal processes) have a positive relationship with cohesion; (g) conflict has a negative relationship with cohesion

Various emergent states, too, have shown to be equally, if not more important for the development and maintenance of cohesion. Trust, for example, is likely critical to the formation of shared bonds among team members. Researchers have divided the concept of trust into a variety of dimensions, with competence-based (i.e., the perception that a person has the technical and/or interpersonal skills that are necessary to perform a given task, Butler & Cantrell, 1984; Kim, Ferrin, Cooper, & Dirks, 2004) and integrity-based trust (i.e., the perception that a person will adhere to a set of principles or guidelines that are considered acceptable, Mayer, Davis, & Shoorman, 1995; Kim, et al., 2004) likely most relevant to task-driven cohesion. Both types can determine how willing team members are to work together and to rely on each other when carrying out task procedures. Because they are often *required* to do such things in order to accomplish team objectives, a lack of trust may detract from members' perceptions of each other's commitment and reduce their sense of "togetherness," thereby weakening cohesion. More relevant to social cohesion is benevolence-based trust, an individual's belief that someone wants to do good for him/her, outside of any self-serving motives (Mayer, et al., 1995). When team members possess these beliefs, they may be more likely to interpret each other's behaviors and intentions in a positive manner, and to disclose more personal aspects of themselves rather

than limiting interactions to those that are task-relevant, all things that may contribute to the development of social cohesion.

Though not always broken down into specific dimensions, trust as a whole has indeed emerged as an important variable in the cohesion literature. Mach, Dolan, and Tzafrir (2010), for example, found that team members' trust, in both their teammates and their leader, was positively related to task cohesion. The authors argued that cohesion is facilitated when members perceive each other as honest, reliable, and genuinely concerned, perceptions that are indicative of high levels of trust. In another study, affective trust among members of a co-op alliance predicted levels of group social cohesion (Hansen, Morrow, & Batista, 2002). Affective trust was defined as subjective in nature, based on the feelings or emotions a person has regarding the perceived trustworthiness of another. Interestingly, trust has shown to be particularly important in less traditional settings, like virtual and global teams, for example. Jarvenpaa, Shaw, and Staples (2004) found that team members' trusting beliefs positively influenced their perceptions of the cohesiveness of multi-national, virtual teams. Similarly, Kuo and Yu (2009) studied virtual teams over the course of an 18-week course and found a positive relationship between levels of trust that emerged in the first half the course, and subsequent levels of cohesion that emerged during the second half.

Another emergent state that is likely to influence cohesion is the idea of team identity. Identity is defined as a person's sense of belonging with a social group or category (Ashforth & Mael, 1989). Individuals use these categories to define themselves based on their perceived similarity with members of their group as compared to members of other groups (Turner, Oakes, Haslam, McGarty, 1994; Fiol & O'Conner, 2005). The *teams* literature indicates that team

members' identification with the team plays an important role in subsequent levels of team cohesiveness (Hogg, 1992; Kramer, 1991). Identifying with one's teammates likely drives the attraction, or bond, that social cohesion is characterized by. Team members who perceive themselves as similar to each other might feel more comfortable, more inclined to socialize, and more socially connected to each other than those who do not identify. Team identity is also likely to exert an influence on other dimensions of cohesion, such as task cohesion and group pride. Specifically, because individuals view others they identify with as similar to themselves (Tajfel, 1974), they may be more likely to view those others as teammates who are seeking to carry out the same tasks as themselves, and to derive a sense that they are "in it together." Additionally, team members may be more inclined to feel a sense of pride from being part of a team if it's a team they identify with; in turn, the more members that feel this way, the more that identification and pride will be reinforced through interactions, contributing to the emergence of group pride at the team level.

Shared knowledge, or cognitive structures and processes at the team-level (Klimoski & Mohammed, 1994), is also expected to be important, particularly for task cohesion. Shared knowledge can facilitate a common understanding of information that is critical for both taskwork and teamwork, such as what the task is, how it should be accomplished, and who should be doing what. Such knowledge will likely enable team members to perform the task in a more unified manner, contributing to the emergence of cohesion. Similarly, shared knowledge regarding the context surrounding task completion (e.g., how important it is to perform well) may generate a shared level of commitment among members, also facilitating cohesion's development. Because of its importance for task completion, most studies on shared knowledge

have focused more on its impact on team performance, and less on its influence on other outcomes, such as task cohesion. Various studies have indeed demonstrated a link between shared knowledge and cohesion, however, though that relationship may not have been the primary focus. One study, for instance, found that cohesion mediated the relationship between shared cognition and team effectiveness (Coetzer & Bushe, 2006). In another example, Hirschfield and Bernerth (2008) found a positive relationship between shared knowledge pertaining to teamwork and social cohesion.

The climate in the team is also likely to play a prominent role in the development and maintenance of cohesion. Climate involves the behaviors and practices that are supported and expected (Schneider & Reichers, 1983) within a particular setting, and can pertain to a variety of different constructs. For example, there might be a climate for teamwork within a team, where collaboration and cooperation are encouraged and rewarded, and in contrast, failure to work together as a team is discouraged and sanctioned. A climate for teamwork is likely going to be critical for the formation of cohesion. If teamwork is not supported, members will be less likely to develop a sense of shared bonding and commitment, and instead will take more of an individualized, and perhaps even competitive approach to their taskwork. If it is supported, however, it is more likely that they will develop a sense of unity, and will engage in key task and interpersonal processes that facilitate cohesion. In support of this notion, Chen, Lu, Tjosvold, and Lin (2008) conducted a lab study was the team climate was manipulated to be cooperative, competitive, or independent. Social cohesion was highest when there was a cooperative climate, and lowest in the independent climate, that was not supportive of teamwork. Another study

showed that teamwork climate positively predicted cohesion in a sample of cross-functional student teams (Daspit, Tillman, Boyd, & McKee, 2013).

It is also possible for a team to have a climate where a large emphasis is placed on the task itself, in which behaviors aimed to improve the task processes and performance outcomes are supported and expected, or what could be called a taskwork climate. This relates to the idea of collective motivation, where team members are jointly motivated to accomplish team objectives. A climate for taskwork is likely to be an important precursor to cohesion, particularly task cohesion. If the norms within the team dictate that task processes should be performed with care, and high performance outcomes are expected, members will each be more likely to have a personal vested interest in the task, which when working together, can culminate in a shared sense of unity and commitment. One study, for example, found that the perceived motivational climate in teams, characterized by an emphasis on shared effort and improvement, was associated with higher task cohesion (Hueze, Sarrazin, Masiero, Raimbault, and Thomas, 2006). Other studies have shown that climates for learning (Mannheim & Halamish, 2008) and continuous improvement (Gard, Lindstrom, & Dallner, 2002), both focused on taskwork, are positively related to cohesion.

Additional variables, such as collective efficacy, friendship or liking among team members, and team member exchange, are also expected to be important for cohesion. Collective efficacy is a team's shared belief in its ability to organize and execute the actions necessary for successful group performance (Bandura, 1997). If team members perceive that they are part of a team that is highly capable, they will likely be attracted to that team, and may derive a sense of pride from being a part of it. On the other hand, if they do not perceive the team as capable, they

will likely be less committed to the task, as they may believe that their commitment will not result in outcomes of value due to their low confidence in the team. Essentially, collective efficacy can enhance cohesion by motivating team members to put forth sustained effort and to work together to accomplish their objectives.

Additionally, friendship or liking among team members is closely related to social cohesion, and is sure to play a role in it. While social cohesion captures mutual attraction and bonding within the team as a whole, friendship/liking is often assessed at the dyadic level or may capture a climate of friendliness and respect, but not necessarily bonding. However, arguably, the more dyadic friendships and social preferences exist within a group, the more likely a social bond will emerge at the broader team level. For example, one study assessed friendship by having participants identify select teammates, and rate the extent to which they knew personal information about each other, discussed personal topics, and considered them to be a friend as opposed to just a team member (Burt, Sepie, & McFadden, 2008). Not surprisingly, this measure exhibited a positive relationship with team cohesion. In another study, Cogliser and Schriescheim (2000) evaluated the degree of warmth and friendliness within teams, demonstrating a strong link between such friendliness and cohesion. Friendliness, whether between dyads or the team as a whole, can likely provide a foundation from which mutual attraction and bonding can develop.

Finally, team member exchange (TMX) captures the quality of team member interactions and working relationships (Seers, 1989). Jordan, Feild, & Armenakis (2002) found a positive correlation between TMX and social cohesion in a sample of military officers. Likewise, Seers, Petty, and Cashman (1995) demonstrated a positive relationship between TMX and cohesiveness

in a longitudinal study of manufacturing workers. A variety of additional studies are likely to also demonstrate such relationships, as TMX and cohesion are closely related. High quality interactions among team members can drive cohesion by contributing to social bonds and mutual attraction. When interacting with teammates is a pleasant experience, members will likely be motivated to engage in additional interactions in the future, enabling cohesion to be developed and maintained. Additionally, strong TMX indicates that task processes are being carried out smoothly, which can further contribute to members' attraction to the team and its tasks. Thus, considering the above, I hypothesize:

Hypothesis 2a-g: emergent states (i.e., (a) trust, (b) identity, (c) shared knowledge, (d) teamwork climate, (e) taskwork climate, (f) collective efficacy, (g) friendship/liking, and (h) team member exchange have a positive relationship with cohesion

Team mediators can be further categorized on the basis of whether they are cognitive, affective, or behavioral in nature (Kozlowki & Bell, 2003). Cognitive mediators include constructs such as team mental models, transactive memory systems, and team learning, all of which are generally thought to enhance team effectiveness. Affective mediators, the category in which cohesion is classified, are constructs that are affective, affectively related, or motivational, such as group moods and emotions, collective efficacy, and conflict and divisiveness. These variables tend to demonstrate relationships with both performance (e.g., Gully, Incalcaterra, Joshi, & Beaubien, 2002) and other affective constructs, such as team viability (e.g., Barrick, et al., 1998). Finally, behavioral mediators include those that are traditionally categorized as team processes, including coordination, cooperation, and communication, for example. Though largely

studied in relation to team effectiveness, they can also influence affective variables, such as team potency (e.g., LePine, et al., 2008).

Because cohesion is affective in nature, it is likely that it will exhibit the strongest relationships with other mediators also falling into the affect category. A variety of theories and empirical studies support the idea that links between variables are strongest when they are matched on some key characteristic. The compatibility principle, for example, purports that a relationship between attitudes and behaviors can only be expected when they are compatible in action, target, context, and time (Ajzen & Fishbein, 1977). Several empirical studies have supported the theory, including a meta-analysis showing that job attitudes predict behaviors most strongly when general attitudes are linked to comparably general behaviors rather than more specific criteria (Harrison, Newman, & Roth, 2006). In a very different domain, de Jonge and Dormann (2006) demonstrated the importance of having a theoretical match between stressors, resources, and strain for stress outcomes in the workplace. Specifically, job stressors, resources, and strain can all be classified as cognitive, emotional, or physical. The authors proposed and supported the triple-match principle, the idea that resources are most likely to moderate the relationship between stressors and strain when all three variables are of the same type. Indeed, they found a lower likelihood of finding a moderating effect when there was only a double-match, and a zero-percent likelihood when the three variables did not match at all.

A similar phenomenon might occur in relation to team mediators. Despite its varied definitions and dimensions, cohesion always represents some form of shared attraction, bonding, or commitment, all affective emergent states. While cohesion can certainly be influenced by group behaviors and cognitions (see examples above), arguably, it will demonstrate the most

direct, hence strongest relationship with mediators that are also affective in nature. Essentially, many affective constructs are closely related to each other, whereas behavioral and cognitive constructs may impact affective variables primarily through their influence on other types of affect. For example, trust and cohesion, both affective variables, may go hand in hand, as team members likely need to have positive perceptions of each other's intentions in order to form bonds with one another. Communication, on the other hand, a behavioral construct, may impact cohesion less directly, such as by signaling that team members are trustworthy or committed, exerting much of its influence through closely related affective variables. Additionally, research shows that job attitudes tend to demonstrate strong relationships with other job attitudes (e.g., organizational commitment strongly correlates with job satisfaction, job involvement, and occupational commitment, Meyer, Stanley, Herscovitch, & Topolnystsky, 2002). Affective variables at the team level will likely also show similar relationships. For these reasons, I expect:

Hypothesis 3a: affective team processes/emergent states have a stronger relationship with cohesion than do behavioral or cognitive team processes/emergent states

Although cohesion is conceptualized as an affective emergent state, research suggests that it can manifest in teams as both attitudes and behaviors. For example, a review of the cohesion literature showed that approximately 33% of studies used measures that assessed attitudes, 35% assessed behaviors, and 23% assessed a mix of both attitudes and behaviors (Dietz, et al., 2014). An example of an attitudinally-focused item is, "The members of our team felt proud to be part of the team" (Hoegl & Germuenden, 2001); an example of a behaviorally-focused item is, "Our team members rarely party together (reverse-scored; Carron, et al., 1985). Additionally, recent interest in non-obtrusive measurement approaches in high-stakes settings

such as the military and long-duration spaceflight has prompted increased efforts to identify behavioral indicators of affective constructs such as cohesion. Thayer and colleagues (2014), for instance, developed and provided evidence of initial validation of a behaviorally-anchored rating scale that measures the three primary dimensions of cohesion – social cohesion, task cohesion, and group pride – by assessing team behaviors. Thus, although cohesion itself is not considered a behavior, it is closely related to behaviors that can reflect the level of cohesion that is present within a team, suggesting that theoretically, it is matched more strongly with behavioral mediators than it is with cognitive mediators, which tend to be more distinct from the cohesion construct. As an example, social support, the tangible and intangible help or backing a person receives from others (Sargent & Terry, 2000), has shown various links with cohesion in the literature (e.g., Sullivan & Feltz, 2003; LePine, et al., 2008; Sullivan & Short, 2011). Social support can come in many forms, such as providing constructive feedback, dealing with conflicts in a respectful manner, listening to grievances, and providing encouragement, all behaviors that can be expected to be closely related to behavioral manifestations of cohesion, such as team members spending time together outside of the work setting. Thus, although cohesion is not directly theoretically matched, I expect that it will demonstrate the second strongest relationship with variables in the behavioral mediators category.

Hypothesis 3b: behavioral team process/emergent states have a stronger relationship with cohesion than do cognitive team processes/emergent states

Beyond being cognitive, affective, or behavioral, it is also possible for team mediators to be classified as being task-focused or social-focused. Like cohesion, a variety of constructs are conceptualized in this manner in the literature. As described above, for example, trust can be

based on perceived competence, the belief that another individual is capable of performing a task, which is inherently task-focused, or integrity and benevolence, the beliefs that a person will behave in a socially acceptable way, or wants to do good for another person outside of self-interest, respectively (Mayer, et al., 1995), both of which can be considered to be social-focused. The leadership literature also draws heavily from early studies (i.e., the Ohio State studies; Stogdill, 1950; Judge, Piccolo, & Ilies, 2004) that identified two overarching types of leadership behaviors: Consideration and Initiating Structure. Consideration is the degree to which leaders demonstrate respect, appreciation, support, and concern for the welfare of their followers (Bass, 1990), behaviors that are socially-oriented. In contrast, Initiating Structure is defined as the extent to which leaders define and organize roles, establish clear avenues for communication, and are focused on goal attainment (Fleishman, 1973), behaviors that are task-oriented. Various uni-dimensional constructs can be classified as being task- or social-focused as well. For instance, team processes such as mission analysis and goal specification revolve around a team's task, whereas conflict management and affect management are focused on interpersonal relationships (Marks, et al., 2001).

Given these distinctions, I expect that relationships between team mediators and cohesion will be stronger when there is a match between the focus of the mediator (i.e., task-focused versus social-focused) and the focus of cohesion (i.e., task cohesion versus social cohesion). Again, drawing from prior research suggesting that links between constructs are stronger when they are theoretically matched on some key characteristic (e.g., action, target, context, and time, Ajzen & Fishbein, 1977; scope [i.e., specific or broad], Harrison, et al., 2006); type [i.e., cognitive, emotional, or physical], de Jonge & Dormann, 2006), I propose that social-focused

mediators will demonstrate stronger relationships with social cohesion than with task cohesion, whereas task-focused mediators will show stronger links with task cohesion as compared to social cohesion. Because social cohesion represents a shared liking and bonding among team members (Beal, et al., 2003), it is fitting that such bonds would be driven primarily by team processes and emergent states that are social in nature. Social-focused meditators likely contribute to social cohesion by enabling team members to get to know each other on a personal level, to form social ties and networks of social support, and to develop positive attitudes toward one another, ultimately strengthening mutual attraction and bonding. As an example, the literature has supported a link between non-task-related social interactions and social cohesion, particularly in the sports domain. Dunn and Holt (2004), and later, Holt and Dunn (2006), for instance, showed that a team building activity that included personal disclosure and mutual sharing greatly enhanced social cohesion in both male and female sports teams. Specifically, team members publicly disclosed personal stories and information about themselves that was not previously known by other members of the team. Following the activity, interview data revealed a strong sense of cohesion; members remarked that "it was the strongest team bond [they've] ever felt," and that the activity "brought the team together, [making] the whole team [gel]" (Holt & Dunn, 2006; p. 357). In another setting, researchers reported that social activities fostered the development of cohesion in primary healthcare teams (Brown, Lewis, Ellis, Beckhoff, Stewart, Freeman, et al., 2010). Examples of such activities include celebrating holidays together, having coffee or lunch as a team, and sharing life events, such as birthdays, marriages, grievances, and so forth. Thus, while it is possible for it to be influenced by task-focused mediators (e.g., task conflict might develop into interpersonal issues), I expect that social cohesion will demonstrate

stronger relationships with social-focused mediators, as they are more closely related from a theoretical standpoint.

Hypothesis 4a: social-focused team processes/emergent states have a stronger relationship with social cohesion than with task cohesion

On the other hand, task cohesion represents a shared commitment and sense of unity around a team's tasks or goals (Beal, et al., 2003), thus is expected to be influenced more strongly by team processes and emergent states that are task-oriented. High levels of task cohesion indicate that team members are united and "on the same page" in regards to their performance goals. To reach this shared state, team members arguably need to engage in key teamwork processes (e.g., communication), to hold common knowledge relevant to team goals (e.g., shared mental models), and to possess positive attitudes and beliefs about the team and its tasks (e.g., collective efficacy). These things likely help produce a collaborative climate in which team members become united and committed to achieving their task objectives. For example, monitoring and backup behaviors, processes in which team members help each other perform their tasks by providing feedback and coaching, performing behavioral actions, and/or taking on and completing a task (Marks, et al., 2001), may be important drivers of task cohesion. If team members know that they can rely on each other, they may perceive tasks as more realistic and approachable, and may be motivated to perform better so that they can reciprocate monitoring and backup behaviors, both of which can increase their commitment to the team's tasks and goals. Beyond that, monitoring and backup behaviors take the pressure off of any single member, reinforcing the idea that members are "in it together," potentially strengthening their shared commitment to completing the task as a collective team. Though not specific to task cohesion,

prior research provides preliminary evidence of the importance of monitoring and backup behaviors. Deeter-Schmelz and Kennedy (2003) found that higher quality team training was associated with higher levels of cohesion in patient care teams. To explain this, the authors argued that team training improved team processes that contribute to successful interactions and performance, thereby increasing team cohesion; monitoring and backup behaviors are key processes that are typically targeted in team training interventions. Further, they found that team members' acceptance of teamwork was also associated with higher levels of cohesion, and suggested that individuals who have a preference for working in teams might be more likely to cooperate and engage in helping behaviors, such as monitoring and backup, contributing to the development of cohesion. Likewise, a recent meta-analysis showed a positive relationship between action processes, which include monitoring and backup behaviors, and team cohesion ($r = .52$, $p < .05$; LePine, et al., 2008). While task-oriented mediators such as these can certainly influence social cohesion (e.g., backup behavior may lead to the formation of friendships), I expect that they will weigh more heavily on task cohesion, as they are more directly related to team tasks and objectives.

Hypothesis 4b: task-focused team processes/emergent states have a stronger relationship with task cohesion than with social cohesion

While social and task cohesion can easily be classified as being social- or task-focused, the third major dimension of cohesion, group pride, is less straightforward. Group pride is conceptualized as the shared importance of being a part of a team, or the shared sense of honor derived from being a team member (Beal, et al., 2003). Arguably, this pride can be driven by both social- and task-focused team characteristics. Specifically, members may take pride in

social aspects of a team, such as the ideologies the team represents, the degree to which its members are socially connected, and the social status the team has established. Conversely, pride can also be derived from task-focused characteristics of a team, such as its overarching purpose, its resources, and its history of successful performance. For these reasons, I do not expect that mediator-focus (i.e., social or task) will have a significant influence on the strength of the relationship between team mediators and group pride. That is, because group pride can be both social- or task-focused in nature, it is not more strongly theoretically matched with either social- or task-focused mediators, hence will likely demonstrate comparable relationships with variables of each type. Whereas social-focused mediators (e.g., affect management) may contribute to group pride by fostering a common sense of belonging and mutual appreciation among team members, task-focused mediators (e.g., confidence building) may do so by demonstrating, or strengthening beliefs about the team's ability to effectively achieve team objectives.

Hypothesis 4c: social- and task-focused team processes/emergent states have comparable relationships with group pride

A primary input in team effectiveness models is the characteristics of the members themselves, or the team's composition (Kozlowski & Bell, 2003). Team members possess a variety of attributes which, in combination, can have an impact on team processes, emergent states, and performance outcomes. Demographic variables, such as age, gender, and race, for example, have garnered considerable attention in the *groups and teams* literature. Indices characterizing teams as either heterogeneous or homogenous on different demographic dimensions are used to examine the influence of demographic composition on team variables. Diversity indices can also capture other team member attributes, such as skills, expertise, and

function. Research generally shows that diversity influences team effectiveness, though in some cases it is positive (e.g., Bantel, 1994), while in others it is negative (e.g., Pelled, Eisenhardt, & Zin, 1999). Relationships likely vary depending on such things as the type of task, the type of attribute that is diverse, time, and the outcome of interest (Argote & McGrath, 1993).

Other key characteristics of interest for team composition involve the dispositions and abilities of team members (e.g., personality, cognitive ability, Kozlowki & Bell, 2003). The aggregate of team members' conscientiousness, for example, has emerged as a positive predictor of team effectiveness (Barrick, et al., 1998). Other traits, such as extraversion (e.g., Barry & Stewart, 1997) and agreeableness (e.g., Neuman & Wright, 1999) have also shown to be influential, though the most effective composition of personality traits often depends on the task type and level of interdependence required (e.g., team-level conscientiousness predicts effectiveness more strongly for planning tasks than it does for decision-making tasks, whereas the opposite occurs for team-level extraversion, Barry & Stewart, 1997; Neuman & Wright, 1999). Beyond personality, the average of team member's cognitive ability has demonstrated a positive relationship with team performance across a variety of studies, including a meta-analysis (Devine & Phillip, 2000). The relationship was supported across a range of task types, but was stronger for unfamiliar as opposed to familiar tasks.

Though often studied in relation to performance, there is also evidence that team composition variables can play a role in levels of team cohesion. A study by Barrick and colleagues (1998), for example, found significant relationships between teams' mean levels of extraversion and emotional stability, and social cohesion. A follow up study replicated these findings, also showing that teams' minimum levels of conscientiousness and agreeableness

positively related to task cohesion (van Vianen & De Dreu, 2001). Other work has linked additional characteristics such as emotional intelligence (Quioidback & Hansenne, 2009) and personality hardiness (Bartone, Johnsen, Eid, Brun, & Laberg, 2002) to team cohesiveness. Authors theorized that these traits influence cohesion by causing team members to interpret different situations the team encounters as positive (i.e., hardiness; Bartone, et al., 2002), and by enabling members to empathize with one another, develop strong relationships, and establish solid systems of social support (i.e., emotional intelligence; Quioidback & Hanseene, 2009) In general, composition variables likely impact cohesion by influencing the way that team members feel about the team, perceive their teammates, interact with one another, and interpret each other's behaviors. In some cases this influence may be positive, while in others, it may be negative. For instance, teams high on conscientiousness may be characterized by great persistence and commitment to the task, facilitating task cohesion, whereas teams low on agreeableness may be characterized by conflict and poor relationships, hindering social cohesion.

Interestingly, researchers have distinguished between composition variables that are surface-level and those that are deep-level (Harrison, Price, & Bell, 1998). While surface-level characteristics are overt, often physical features (e.g., age, gender, race/ethnicity), deep-level attributes are not readily observable, but can be communicated over time through social interactions and information exchange (e.g., attitudes, beliefs, values). Research has shown that diversity pertaining to each type of variable can influence cohesion, but that the strength of the effects changes over time – surface-level diversity is more influential early in a team's lifespan, but once team members have sufficient opportunities to engage in meaningful interactions, deep-level diversity begins to exert a stronger influence (Harrison, et al., 1998). This is because when

team members first come together, they form impressions of, and categorize each other based on stereotypes associated with their surface-level characteristics. These perceptions can partially determine the way they interact with and perceive one another, influencing levels of cohesion. As time progresses, however, members are able to form impressions based on behavioral observation, information gathering, and personal experiences, and cohesion becomes more heavily influenced by members' actual values, beliefs, and attitudes (i.e., deep-level characteristics), which shape social interactions. Consistent with prior research, I therefore expect that:

Hypothesis 5a-d: team composition variables [i.e., (a) surface-level variables and deep-level variables ((b) personality, (c) attitudes/values, and (d) skills/abilities)] have a significant relationship with cohesion

Hypothesis 5e: the relationship between surface-level composition variables and cohesion is stronger in ad-hoc than in intact teams

Hypothesis 5f: the relationship between deep-level composition variables and cohesion is stronger in intact than in ad-hoc teams

Perhaps the most established antecedent of a team's cohesion is its leadership. Leadership refers to the process of influencing a group of followers toward the achievement of a vision or set of goals, as a function of a leader's efforts (Robbins & Judge, 2009; Landy & Conte, 2010). Researchers have examined leadership from a variety of angles, often considering such things as leaders traits, leader behaviors, leaders' relationships with followers, leadership style, and of course, leader effectiveness. Accordingly, research investigating leadership and cohesion has also included a range of approaches. The sports literature, for instance, where a bulk of cohesion

research is conducted, has paid great attention to the influence of coaches on levels of team cohesion. One study showed that the relationship between leadership and cohesion in football teams differed depending on the type of leadership style that was examined (i.e., relationship-oriented versus task-oriented, Heydarinejad & Adman, 2010); In this case, only relationship-oriented leadership was predictive. Jowett and Chaundry, 2004 found that athletes' perceptions of both leadership behaviors and of their relationship with their coaches predicted levels of team cohesion. Similarly, a study of female ice hockey players showed that perceived leadership behavior, which encompassed leaders' training and instruction, democratic style, autocratic style, social support, and rewarding behavior, had a significant influence on social cohesion (Spink, 1998).

Leadership has also demonstrated relationships with cohesion in more traditional organizational settings. Jung and Sosik (2002), for example, hypothesized that transformational leadership could increase cohesion by highlighting the importance of cooperation and realigning follower's values. Consistent with these ideas, they found a positive relationship between leadership and group cohesiveness across forty-seven groups from four large firms. Another study demonstrated a positive relationship between charismatic leadership style and cohesion in a sample of project teams representing three-hundred top corporations in Taiwan (Wang, Chou, & Jiang, 2005). Interestingly, other authors have found a link between team leadership and cohesion (Gupta, Huang, & Niranjan, 2010), suggesting that leadership behaviors do not necessarily need to come from a formal leader in order for them to influence cohesion. Overall then, I expect that leadership will demonstrate a positive relationship with team cohesion. Leaders likely exert this influence by establishing shared visions and goals, facilitating

teamwork, managing team attitudes and emotions, and creating a collaborative, convivial climate. Further, as prior authors have noted, leadership may increase cohesion by strengthening collective identification with the team, and realigning followers' values pertaining to the importance of collaboration and teamwork (Jung & Sosik, 2002).

Hypothesis 6a-e: leadership (i.e., (a) leader behaviors, (b) leader traits, (c) leader relations, (d) shared leadership, and (e) leader effectiveness) has a positive relationship with cohesion

As described earlier, leader behaviors often fall into one of two overarching dimensions – those that are task-oriented or those that are relationship-oriented – (e.g., initiating structure and consideration, Ohio State studies; production-oriented versus employee-oriented, University of Michigan studies, Robbins & Judge, 2009) that have shown unique relationships with leadership outcomes. A meta-analysis of the behaviors Consideration and Initiating Structure, for instance, found that Consideration showed stronger relationships with follower satisfaction, motivation, and leader effectiveness, while Initiating Structure was more strongly linked to leader and group performance (Judge, et al., 2004). These findings may have implications regarding the influence of leadership on cohesion, which indeed, has demonstrated differential relationships with task- versus relationship-oriented leader behaviors (e.g., Heydarinejad & Adman, 2010), particularly when different dimensions of cohesion are considered. Additionally, it may be possible to categorize other aspects of leadership as being primarily task- or relationship-oriented as well. For example, one prominent leadership theory describes the transformational and transactional leadership styles (Bass, 1990; Robbins & Judge, 2009). Transformational leaders are defined by four main characteristics, *idealized influence* (i.e., provides vision and sense of mission, inspires

pride, acquires respect and trust), *inspirational motivation* (i.e., expresses high expectations, focuses efforts, communicates important purposes), and *intellectual stimulation* (i.e., promotes intelligence, rationality, and careful problem solving), which can be considered to be task-focused, as well as *individualized consideration* (i.e., gives personal attention, coaches, advises, treats each follower individually), which can be considered more interpersonal, or social-focused. Such leaders inspire their followers to transcend their own self-interests and can have a profound influence on their subordinates (Robbins & Judge, 2009). In contrast, transactional leaders guide or motivate goal accomplishment by clarifying role and task requirements. They are also defined by four main characteristics which capture differing degrees of involvement in guiding and rewarding task completion (i.e., contingent reward; management by exception-active, management by exception-passive, and laissez-faire), thus are primarily task-focused.

As another example, leader-member exchange (LMX) theory is an approach to leadership that is almost entirely focused on social relationships. Specifically, the theory states that leaders engage in different behaviors with different subordinates, and that the pattern of behavior they engage in is largely dependent on the quality of the leader-subordinate relationship – subordinates who have high-quality relationships with the leader become in-group members who are afforded certain privileges, while those with low-quality relationships become out-group members with no such privileges (Dansereau, Green, & Haga, 1975; Landy & Conte, 2010). It may even be possible to classify certain leaders traits as being primarily relevant to a team's tasks, or to a team's social relationships. Various personality traits, for instance, have been linked to both leadership emergence and effectiveness (e.g., Judge, Bono, Illies, & Gerhardt, 2002), some of which may be inherently more task-relevant (e.g., conscientiousness) or more

relationship-relevant (e.g., agreeableness). Likewise, other leader characteristics such as general intelligence and emotional intelligence, which have been linked to leadership outcomes (Judge, Colbert, & Illies, 2004; Harms & Credé, 2010), can be similarly distinguished – whereas general intelligence can be considered largely task-relevant, emotional intelligence can be classified as primarily relevant to social relationships.

Thus, like other cohesion antecedents being explored in this study, a variety of leadership variables can be categorized as primarily relevant to tasks (i.e., task-focused) or primarily relevant to social relationships (i.e., relationship-focused). Making these distinctions will enable a more nuanced understanding of the relationship between leadership and cohesion, that is, whether or not it varies based on the focus of the leadership variable, and the type of cohesion dimension (i.e., task, social, group pride) being examined. Consistent with my discussion above, I expect that relationships will be stronger when there is a theoretical match between the construct types. Specifically, I expect that task-focused leadership variables will demonstrate a stronger relationship with task cohesion than it will with social cohesion. Task-focused leadership likely enhances task cohesion by establishing a shared vision, clarifying role requirements, facilitating task completion, and motivating members to achieve team objectives, things that can promote shared commitment and unity around team tasks. Here, I also expect that task-focused leadership variables will be more strongly related to group pride, as compared to social cohesion. While it is possible that social-oriented leadership can contribute to group pride by creating a collaborative, convivial atmosphere in the team, I propose that leaders will primarily enhance pride through task-oriented variables, such as emphasizing the team's past accomplishments, their abilities, and the value of their current mission. The *idealized influence*

component of transformational leadership, for example, specifically involves inspiring pride in followers, along with establishing a shared vision and investment in the team's mission (Bass, 1990; Robbins & Judge, 2009). In this case, then, I argue that group pride is more strongly theoretically matched with task- than with relationship-focused leadership variables. Conversely, I expect that relationship-focused leadership variables will exhibit a stronger relationship with social cohesion than with task cohesion or group pride. Relationship-focused leadership can likely promote social cohesion by increasing each member's satisfaction with the team, reducing resentment and conflict among team members, and creating a climate that encourages strong social relationships.

Hypothesis 6f-g: task-focused leadership variables have a stronger relationship with (f) task cohesion and (g) group pride than with social cohesion

Hypotheses 6h-i: social-focused leadership variables have a stronger relationship with social cohesion than with (h) task cohesion and (i) group pride

Although there have been few organized efforts to understand cohesion's antecedents, there is clear interest in developing cohesion, as evidenced by a variety of studies that have aimed to increase it through some form of team training or team building activity. Several articles in the sports domain, for instance, have evaluated the effectiveness of different programs or other interventions designed to enhance cohesion. Copeland, Bonnell, Reider, and Burton (2009) examined a two-week mental skill training program focused on improving stress management and team cohesion in teams of lugers, and found that the training was associated with higher levels of both social and task cohesion as compared to pre-scores and a control group. Similarly, other authors showed that a team building training program implemented over

the course of several weeks increased levels of the cohesion dimension, attraction to group-task within two different exercise groups (Carron & Spink, 1993; Spink & Carron, 1993). The programs involved training team leaders how to facilitate different conditions, team processes, and behavioral norms that contribute to the development of cohesion over the course of their exercise classes.

Team building and training interventions have been used outside of the sports literature as well. A study of nursing faculty found that a team-building retreat, where team members participated in challenging activities designed to facilitate trust and group problem-solving, significantly increased cohesion (Birx, Lasala, & Wagstaff, 2011). Subsequent qualitative analyses revealed that the retreat facilitated cohesion by developing trust among team members, revealing their similarities and differences, setting a friendlier tone within the team, and overall, enabling them to get to know one another better. In a similar setting, Deeter-Schmelz and Kennedy (2003) found that the adequacy of team training, as perceived by team members, positively predicted cohesion in cross-functional patient care teams. Exemplifying a different type of intervention, another study showed that the presence of a facilitator during team meetings was associated with higher cohesion in ad-hoc teams (Anson, Bostrom, & Wynne, 1995). Facilitators used process-oriented techniques and flipcharts to help guide group discussion. As previous authors have suggested, team interventions likely enhance cohesion by enabling extensive social interactions, facilitating key team processes and emergent states, and emphasizing the importance and value of being a part of the team. For these reasons, I hypothesize that:

Hypothesis 7a-d: team interventions (i.e., (a) task training, (b) team training, (c) team building, (d) facilitator/tool) have a positive relationship with cohesion

Finally, there are also situational variables that can have an influence on cohesion. Those most heavily examined include such things as task/goal interdependence, team size, and team tenure. Brawley, Carron, and Widmeyer (1987), for instance, used discriminant function analysis to classify participants as belonging to interdependent or non-interdependent sports teams on the basis of their cohesion levels – those in interdependent teams demonstrated higher cohesion. Likewise, a positive relationship was found between goal interdependence and task cohesion in a study of work teams in a public sector organization (Carless & De Paola, 2000). Interestingly, Gully and colleagues' (1995) meta-analysis revealed that task interdependence moderated the relationship between cohesion and performance such that the relationship was stronger for teams high versus low on interdependence. Interdependence may be especially relevant to task cohesion, as it requires team members to come together and coordinate in order to carryout task requirements.

Team size, another situational variable, generally demonstrates negative relationships with cohesion, perhaps because larger teams make it difficult for team members to meaningfully interact with every other member, and in turn, may contribute to the formation of smaller subgroups within the larger team. Carron and Spink (1995) conducted four studies of various groups and concluded that both task and social cohesion are higher within smaller groups. Like interdependence, a meta-analysis found that the relationship between cohesion and performance is stronger in smaller groups, as compared to larger groups (Mullen & Copper, 1994). Team member familiarity and team lifespan are other variables that often show relationships with

cohesion. Bartone and colleagues (2002), for example, showed that military units that had been together for a longer time had higher levels of cohesion than those that were more recently formed. Another study found that teams of friends performed better than teams of acquaintances because they had higher group commitment, a construct that is very similar to cohesion (Jehn & Shah, 1997).

Additional characteristics surrounding the task, such as the team's level of autonomy in task completion, the degree of difficulty or challenge involved, the perceived importance of performing the task, and the resources available to the team, are all also likely to have an influence on cohesion. Autonomy involves the degree of control team members have over the way they perform the task and manage the team. Such control may increase cohesion because members will have a personal say in the way things are done, thus are likely to be more committed to the team's objectives. Additionally, if members are able to develop strategies as a team, they are likely to be more united and consistent when performing the task. In a similar manner, the perceived importance of the task being performed can also play a role. If members know that it is critical for them to work together and perform well, for example, to perform heart surgery, they are probably going to be more willing to do whatever is necessary to succeed, to be mutually committed to achieving success, and to be united in goal accomplishment. Related to this, task significance, the extent to which a task is perceived as important and significant, is considered a key contributor to motivation and satisfaction (Hackman & Oldham, 1976), and may translate to cohesion in the context of teams. The resources available to the team may contribute to cohesion by enabling task processes to run more smoothly, reducing conflict, and making the task and being a member of the team more attractive to its members. In contrast to

these things, the challenges present in the team, such as role ambiguity, or the degree of workload, may detract from cohesion, as they may create an unpleasant environment, reducing attraction, and perhaps even motivating members to leave the group. Indeed, each of the above things have been linked to cohesion in the literature (autonomy [Man & Lam, 2003], task importance [e.g., Widmeyer & Williams, 1991], resources [e.g., Gilbert, 2000], challenges [e.g., Eys & Carron, 2001]). Finally, communication richness, capturing the medium through team members communicate (e.g., face-to-face versus teleconferencing) and/or the extent to which they are co-located (e.g., face-to-face versus distributed), can also influence the development and maintenance of cohesion. Several studies suggest that cohesion can be hindered in virtual, distributed teams due to a lack of social cues and opportunities for spontaneous communication (Hambley, O'Neill, & Kline, 2007; Gonzalez, et al., 2003). The more rich the media, or the more members interact face-to-face, however, the less likely cohesion is to be hindered. Hambley and colleagues (2007), for example, found that cohesion was higher in teams who communicated through videoconferencing than in those who communicated through instant messaging. Essentially, the more rich the communication is, the more there will be opportunities for mutual attraction and bonding to develop. Therefore, I propose:

Hypothesis 8a-h: situational variables (i.e., (a) interdependence, (b) autonomy, (c) team tenure, (d) resources,(e) task importance, and (f) communication richness) will have a positive relationship with cohesion; (g) team size and (h) challenge will have a negative relationship with cohesion

The hypothesized relationships described above are summarized in Table 1 and visually depicted in Figure 1.

Table 1: Hypotheses

Hypothesis	Description
Hypothesis 1a-h	Team behaviors (i.e., (a) communication/information-sharing, (b) workload sharing, (c) cooperation, (d) transition processes, (e) action processes, (f) interpersonal processes) have a positive relationship with cohesion; (g) conflict has a negative relationship with cohesion
Hypothesis 2a-g	Emergent states (i.e., (a) trust, (b), identity, (c) shared knowledge, (d) teamwork climate, (e) taskwork climate, (f) collective efficacy, (g) friendship/liking, and (h) team member exchange have a positive relationship with cohesion
Hypothesis 3a	Affective team processes/emergent states have a stronger positive relationship with cohesion than do behavioral or cognitive team processes/emergent states
Hypothesis 3b	Behavioral team process/emergent states have a stronger positive relationship with cohesion than do cognitive team processes/emergent states
Hypothesis 4a	Social-focused team processes/emergent states have a stronger positive relationship with social cohesion than with task cohesion
Hypothesis 4b	Task-focused team processes/emergent states have a stronger positive relationship with task cohesion than with social cohesion
Hypothesis 4c	Social- and task-focused team processes/emergent states have comparable relationships with group pride
Hypothesis 5a-d	Team composition variables [i.e., (a) surface-level variables and deep-level variables ((b) personality, (c) attitudes/values, and (d) abilities/skills)] have a significant relationship with cohesion
Hypothesis 5e	The relationship between surface-level composition variables and cohesion is stronger in ad-hoc than in in-tact teams
Hypothesis 5f	The relationship between deep-level composition variables and cohesion is stronger in in-tact than in ad-hoc teams
Hypothesis 6a-e	Leadership (i.e., (a) leader behaviors, (b) leader traits, (c) leader relations, (d) shared leadership, and (e) leader effectiveness) has a positive relationship with cohesion
Hypothesis 6f-g	Task-focused leadership variables have a stronger positive relationship with (f) task cohesion and (g) group pride than with social cohesion
Hypotheses 6h-i	Social-focused leadership variables have a stronger positive relationship with social cohesion than with (h) task cohesion and (i) group pride
Hypothesis 7a-d	Team interventions (i.e., (a) task training, (b) team training, (c) team building, and (d) facilitator/tool) have a positive relationship with cohesion
Hypothesis 8a-h	Situational variables (i.e., (a) interdependence, (b) autonomy, (c) team tenure, (d), resources, (e) task importance, and (f)

Hypothesis	Description
	communication richness) have a positive relationship with cohesion; (g) team size and (h) challenge have a negative relationship with cohesion

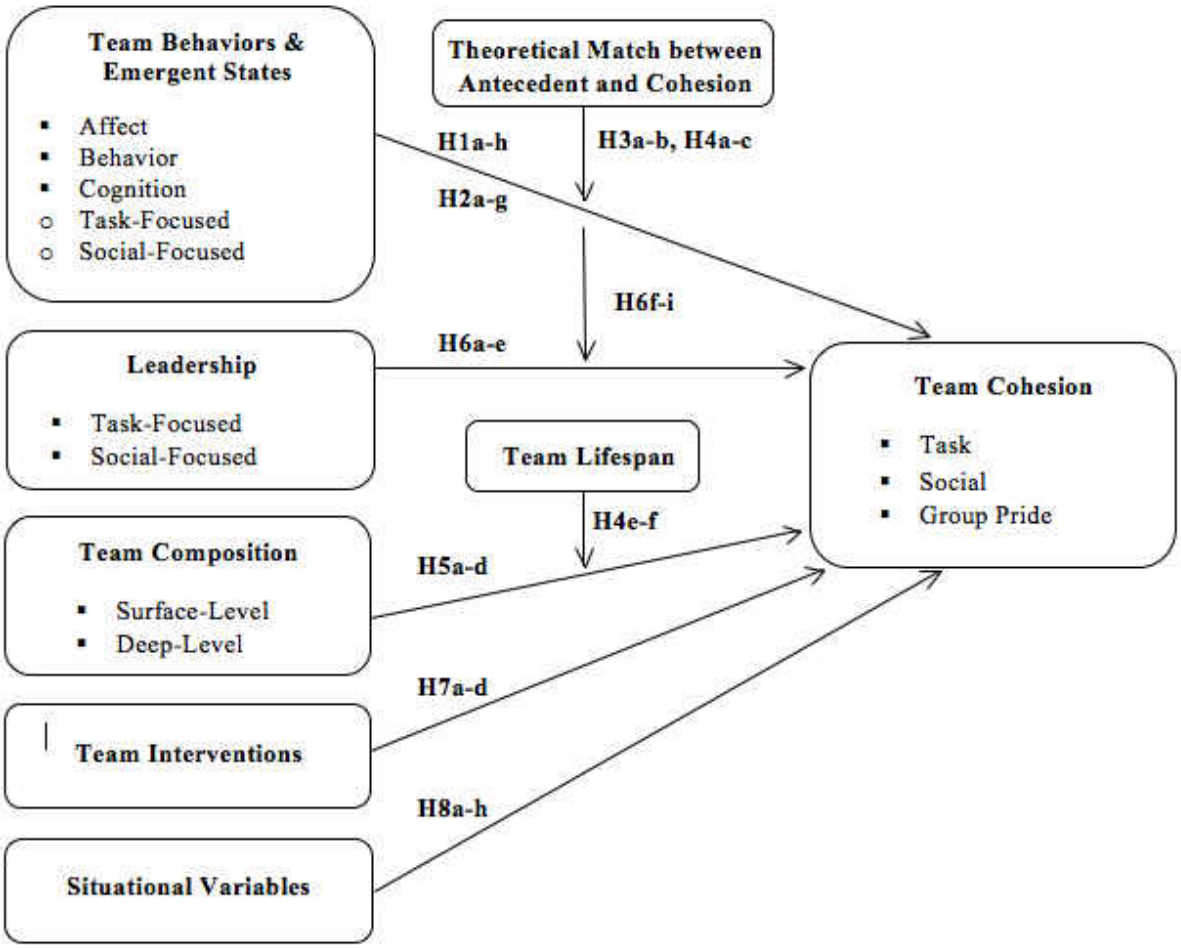

Figure 1. Hypothesized Relationships

CHAPTER THREE: METHODOLOGY

Meta-analysis is "the quantitative combination of information from multiple empirical studies to produce an estimate of the overall magnitude of a relationship, or impact of an intervention" (Rothstein, 2003; p. 116). Because some studies are more precise than others, a simple mean of effect sizes is not appropriate for estimating relationships (Borenstein, Hedges, Higgins, & Rothstein, 2011). Instead, meta-analysis is used to compute a weighted mean, where more weight is assigned to some studies, and less weight is assigned to others. Meta-analyses are often used to provide a systematic review of the literature on a topic resulting in quantitative data that can be used to inform future research and practice. They date back to the early 1900's when the technique was used to evaluate the effectiveness of a typhoid vaccine (Pearson, 1904), though the term *meta-analysis* was not coined until 1976 by Glass (1976). Meta-analyses have since been used in a variety of fields, for a range of purposes, such as medicine (e.g., to ensure medical treatments are based on sound empirical data), pharmaceuticals (e.g., to assess the effectiveness of a drug), education (e.g., to compare teaching approaches), criminology (e.g., to evaluate the efficacy of programs for reducing criminal behavior), business (e.g., to assess the validity of organizational practices), and psychology (e.g., to compare psychological interventions) (Borenstein, et al., 2011). In the current study, I used meta-analysis to generate quantitative estimates of the relationships between various antecedents and cohesion, as well as to identify potential moderators of these relationships.

Literature Search

To identify primary studies for inclusion in the meta-analysis, searches were conducted within the electronic databases PsycINFO (1887-current), PsycARTICLES (1984-current), PsycBOOKS (1953-2005), and Dissertation Abstracts International (1861-current) for combinations of the following keywords within article abstracts: cohesion, cohesiveness, group, team, interpersonal attraction, group attraction, task commitment, task attraction, group integration, social integration, group pride, cooperation, and resistance to disruption. These search terms align with those used in previous cohesion-focused meta-analyses.

Literature Search Results

As described above, a variety of search terms and databases were utilized to identify potentially relevant articles. Searches yielded a total of 6,300 articles. An initial review enabled me to identity articles that clearly were not relevant to the goals of this effort (e.g., animal studies) as well as articles that were duplicated. Upon removing these, 1,678 articles remained. A breakdown of the number of results that each search term yielded, as well as the information above can be found in Table 2.

Table 2: Literature Search Results

Search Terms	**# of results**
cohesi* + team	1,722
group cohesi*	2,125
interpersonal attraction + team	21
group attraction	43
task commitment + team	4
task attraction + team	4
group pride	38
group integration	219
cooperation + team	2,010
resistance to disruption	27
social integration	87
TOTAL	6,300
TOTAL after removal of duplicates and clearly irrelevant articles	1,678

Exclusion and Inclusion of Articles

To be coded and included in analyses, articles needed to meet a number of requirements. First, samples of children, clinical or counseling groups, and sports teams were excluded, as they are not relevant to the IO/OB population of interest. Second, articles needed to contain sufficient statistical information to enable me to calculate a correlation between an antecedent variable and cohesion. Third, the scope of the meta-analytic review was limited to the past 30 years of research, thus articles published prior to 1984 were excluded. Because the conceptualizaton and operationalization of cohesion have changed significantly since it first appeared in the literature, and because research began to converge and reflect what we see in the literature today around the mid 80's (see Literature Review), focusing on the past three decades seemed to be an appropriate

approach. Aside from these broader criteria, a number of other factors rendered articles uncodeable. These factors are summarized in Table 3. On the basis of these criteria, a total of 342 articles were ultimately coded and included in analyses.

Table 3: Excluded and Included Articles

Search Terms	**# of results**
Excluded Articles sports sample	232
children sample	53
clinical or counseling groups	191
no useable statistics	154
article didn't look at cohesion antecedents	79
article didn't look at cohesion	240
article not available	42
article not in English	20
article not quantitative	90
article older than 30 years	156
other	79
Included Articles	342

Inclusion Criteria

To be included in the meta-analysis, primary studies needed to contain sufficient information to calculate a correlation between an antecedent and cohesion. Additionally, studies where it was not possible to determine whether analyses were conducted at the individual- or the team-level were to be excluded, but no instances like this occured. In their meta-analysis of cohesion and performance, Gully and colleagues (1995) noted that mixing levels of analysis can underestimate effects because the cohesion-performance relationship is weaker at the individual-

level. Beal and colleagues (2003) further discussed this in their own meta-analysis, arguing that the issue is exacerbated when effect sizes are sample-size weighted, as is often the case in meta-analysis. Because studies conducting analyses at the individual-level will have larger sample sizes than those at the team-level (i.e., the sample size will reflect the number of individuals versus the number of teams), they will be weighted more heavily in the meta-analysis, potentially skewing the results. For these reasons, I conducted separate analyses for effect sizes at each level of analysis to determine if a bias is present, as further described in the Results section.

Coding Procedures

Studies that met the inclusion criteria were coded for several pieces of information, including sample characteristics, reliability of measures, and effect sizes. A second graduate researcher was recruited to code articles with me to help ensure that the coding process was consistent, rigorous, and aligned with the literature. While the second coder has not yet coded every article included in the analyses, we coded 50 articles together to attain a shared mental model of the approaches through which articles should be coded.

Moderators

In addition to the basic coding categories, each study was coded for the type of antecedent, and the dimension of cohesion being examined. Antecedents were coded into broad categories capturing various constructs that are often analyzed in the *groups and teams* literature, as well as more specific constructs. Specifically, team mediators were classified as team processes or emergent states, affective, behavioral, or cognitive, and social-focused and task-focused, wherever possible. Additional antecedent categories included team composition

variables, leadership variables, team interventions, and situational variables. Leadership variables were also coded as social-focused or task-focused, while team composition variables were coded as surface-level or deep-level. More fine grain coding within each category was also conducted. Consistent with previous meta-analyses (Mullen & Copper, 1994; Beal, et al., 2003) cohesion coding included the dimensions task cohesion, social cohesion, and group pride. The coding scheme that was utilized is depicted in Table 4.

Description of Coding Scheme

In this section, I provide a brief description of each of the major coding categories that were utilized, as well any decision rules that may have accompanied them. A summary of coding is presented in Appendix A.

Level of analysis. Each effect size was coded to reflect whether it was derived from analyses conducted at the individual-level or the team-level of analysis. This code captured whether researchers combined individual participant's scores in conducting statistical analyses (i.e., individual-level), or if they first aggregated scores to the team-level, then combined team scores in conducting their analyses (i.e., team-level). Such codes were used when both the antecedent score and the cohesion score were analyzed at the same level – cross-level analyses were not included.

Team type. The teams being investigated were coded as being ad-hoc or intact. Consistent with previous team meta-analyses (e.g., Salas, DiazGranados, Klein, Burke, Stagl, Goodwin & Halpin, 2008), teams were considered to be ad-hoc if they did not exist outside of the context of the study. Conversely, they were considered intact if they had a shared history associated with a common assignment that would exist regardless of whether or not the study was conducted.

Type of cohesion. In line with Beal and colleagues' (2003) meta-analysis on the cohesion-performance relationship, cohesion was coded as falling into one of three dimensions – social cohesion, task cohesion, and group pride – whenever possible. Social cohesion was coded on the basis of the following definition: "a shared liking for or attachment to the members of the group" (Beal, et al., 2003, p. 995). Thus, measures capturing preference, bonding, and liking among team members were coded as social cohesion. Task cohesion was coded based on its previous conceptualization as the "extent to which the task allows the group to attain important goals or the extent to which a shared commitment to the group's task exists" (Beal, et al., 2003, p. 995). Measures capturing task commitment and task utility therefore were coded into the task cohesion category. Group pride has been defined as, "the extent to which group members exhibit liking for the status or ideologies that the group supports or represents, or the shared importance of being a member of the group" (Beal, et al, 2003, p. 995). In turn, measures that captured this shared importance or commitment to the team were coded as group pride. Cohesion measures that did not reflect one of these three definitions and represented more generic measures of cohesion were coded into the overall, composite category of cohesion.

Team behaviors. Team behaviors, or processes, were coded based on a variety of existing conceptualizations in the groups and teams literature. For example, when appropriate, behaviors were coded on the basis of the taxonomy put forth by Marks and colleagues (2001) comprised of transition processes (i.e., "periods of time when teams focus primarily on evaluation and/or planning activities to guide their accomplishment of a team goal or objective," p. 364), action processes (i.e., "periods of time when teams conduct activities leading directly to goal accomplishment," p. 366), and interpersonal processes (i.e., "processes teams use to manage

interpersonal relationships," p. 368). Each of these overarching categories are comprised of a set of more specific team behaviors: transition processes encompass mission analysis, goal specification, and strategy formulation and planning; action processes include monitoring progress toward goals, systems monitoring, team monitoring and backup, and coordination; and interpersonal processes consist of conflict management, motivating and confidence building, and affect management. Consistent with LePine and colleague's (2008) meta-analyses on this very taxonomy, studies that included direct measures of the Marks, Matheiu, Zacarro taxonomy were coded as such, and other studies that included more indirect measures were coded into the appropriate categories based on the extent to which the content of the items corresponded with the definitions of the processes. A study with the behavior, 'team goal setting,' for example, was coded as a transition process – though it did not directly correspond to one of the behaviors in this category, its meaning closely corresponded with that of the overarching category.

There are a variety of additional team behaviors that are prominent in the literature but that cannot be neatly categorized into the above taxonomy. Measures that captured the degree or quality of information exchange among team members, for example, were coded as communication/information sharing. Consistent with Mesmer-Magnus and DeChurch's (2009) meta-analysis on information-sharing, this included such things as the amount of information exchanged, the effectiveness of oral and written discussion, and the extent to which team members make deliberate attempts to keep each other informed. Team cooperation and conflict were coded in accordance with the ways in which they are commonly defined in the literature (i.e., "the willful contribution of personal efforts to the completion of interdependent jobs," Wagner, 1995; "the process resulting from tension between team members because of real or

perceived differences," De Dreu & Weingart, 2003, respectively). These constructs were most often measured directly; in some instances, however, measures were coded into these categories on the basis of their definitions. For example, one study measured the number of disagreements that occurred between team members during task completion. Though this was not directly labeled conflict, it was coded as such because it captured the notion of tension between members due to differences. Conflict was reverse coded when it was combined with other variables that were expected to show positive relationships with cohesion (e.g., when all behavioral mediators were examined together and compared to affective and cognitive mediators) so as to not detract from the overall relationship between such variables and cohesion. Measures that assessed a sense of competition among team members were reverse-coded and placed in the cooperation category, as competition represents a lack of cooperation. Finally, measures that captured the extent to which team members effectively and equitably allocated the team's tasks (Erez, et al., 2002) were coded into the workload sharing category. This included measures that were directly labeled as such, as well as others that captured things like the amount of effort team members put forth, the degree to which members participated in the task, and the extent to which decision making was collaborative/participative. Measures of social loafing were reverse-coded and placed in this category, as loafing is essentially a failure to share the workload among team members.

Emergent states. Emergent states were coded in accordance with how they are commonly conceptualized by teams researchers. For example, Mathieu and colleagues (2008) conducted a review of the teams literature and identified key emergent states such as trust, collective cognition, team confidence, and team climate. Trust has been defined as "the willingness to be

vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party" (Mayer, et al., 1995, p. 712). Thus, measures that reflected this definition were coded as trust, and were directly referred to as trust in most instances. This encompassed a variety of different trust types, such as cognitive trust, emotional trust, trust in team members' abilities, and trust in team members' intentions. Measures that captured some form of collective cognition, such as shared mental models, transactive memory systems, and strategic consensus (Mathieu, et al. 2008) were coded into the broader category, shared cognition. While these are often examined as distinct constructs, *k*'s were not high enough to meta-analyze them separately, thus coding them into the overarching category was more appropriate.

Climate was coded on the basis of its definition as "the set of norms, attitudes, and expectations that individuals perceive to operate in a specific social context" (Pirola-Merlo, Hartel, Mann, & Hirst, 2002). While a variety of specific climate types have been examined, I coded them into the broader categories, teamwork climate and taskwork climate. Not only was this a practical approach given the low *k*'s that would have resulted from examining each climate type separately, but it also was fitting from a theoretical perspective, as I did not expect that each specific type of climate (e.g., service climate, justice climate) would show unique relationships with cohesion, but rather that those focused on the team versus those focused on the task would represent a more meaningful distinction. Thus, measures capturing such things as cooperative climate and climate for teamwork were coded under the broader term, teamwork climate, while those capturing things like learning climate and climate for continuous improvement were coded under the broader term, taskwork climate.

Mathieu and colleagues (2008) describe a category of emergent states referred to as team confidence, which encompasses team efficacy and team potency. These constructs are largely similar, yet have slightly different levels of specificity – while efficacy reflects a team's belief that they can be successful on a *specific* task, potency is a team's belief that they are capable of being successful in *general*. In line with their categorization, I coded measures that captured team efficacy and team potency, either directly or through their operationalizations, into the team confidence category. A variety of measures assessed degrees of friendship and liking among members of teams. For example, some measured the extent to which team members considered themselves to be friends versus just co-workers, some measured liking-based team member preference, and some measured the quality of social relationships within the work group. These were coded together into a friendship/liking category. Finally, measures that assessed the quality of interactions and processes between team members were coded as team-member exchange, in line with the manner in which this construct is defined in the literature (i.e., the quality of member interactions and working relationships, Seers, 1989).

Team behavior/emergent state type. Team behaviors and emergent states were further distinguished based on the ABC's – that is, whether they were cognitive, behavioral, or affective in nature (Kozlowski & Bell, 2003). Essentially, the cognitive code was used when measures captured what team members *think*, such as shared mental models and strategic consensus; the behavioral code was used when measures captured what team members *do*, such as exchanging information and sharing their workload; and the affective code was used when measures captured what members *feel*, such as trust and friendship/liking.

Team behavior/emergent state focus. Behaviors and states were also coded as being primarily task-focused or primarily social-focused. As the codes imply, the task-focused code was utilized when measures captured elements of a team's tasks or goals (e.g., transition processes), while the social-focused code was used when measured primarily involved relationships between team members and social attitudes (e.g., friendship/liking). Each variable could be coded as either social-focused or task-focused depending on its operationalization. Trust, for example, was considered task-focused when it involved beliefs about members' ability to perform the task competently, but was considered social-focused when it assessed beliefs about members' integrity or social intentions. Variables that could not easily be classified as task- or social-focused (i.e., measures that captured both elements) were not assigned a code in this category.

Team composition variables. Team member characteristic were coded as surface-level or deep-level, in accordance with the diversity literature. That is, variables that are readily observable, such as age, gender, and race, were coded as surface-level, while those that are communicated over time through social interactions, such as personality, attitudes, and abilities, were coded as deep-level (Harrison et al., 1998). Deep-level variables were further distinguished as personality (e.g., Big Five personality traits, positive/negative affectivity), attitudes/values (e.g., teamwork orientation, psychological empowerment), and abilities/experiences (e.g., cognitive ability, work experience) (Mathieu, et al., 2008). Beyond this, team composition variables were coded based on how they were indexed in statistical analyses, and/or how they were operationalized. Specifically, variables that were aggregated through a mean, sum, or correlation were considered indices of similarity, as they captured the extent to which team

members are similar on a certain characteristic. This code was also assigned when measures assessed team member similarity directly (i.e., items asked about how similar members were on a particular attribute). Conversely, variables that were aggregated through a standard deviation or variance score were considered to be indices of diversity, as they captured the extent to which members were different. Again, this code was also assigned when measured directly assessed team member diversity through the wording of the items. Variables that were aggregated through a minimum or maximum score were coded as such. Finally, in some cases, variables were not aggregated to the team level, thus were coded as individual-level.

Leadership. Consistent with the various approaches through which it is commonly studied, leadership variables were grouped into the following codes: leader behaviors, leader traits, leader relationships, team or shared leadership, and leader effectiveness (Robbins & Judge, 2009; Landy & Conte, 2010). Measures that captured actual actions that the leader engaged in, such as initiating structure, or providing individualized consideration, were coded as leader behaviors. Those assessing characteristics of the leader, such as personality or experience, received the leader traits code. The leader relationships code was utilized when measures captured the nature or quality of the leader-follower relationship. For example, this category was primarily comprised of measures of LMX. When measures did not refer to a hierarchical, specific team leader, but rather a sharing of leadership functions across team members, the team/shared leadership code was utilized. In some cases, this construct was directly assessed through specific measures of shared leadership (e.g., items asking about the extent to which leadership functions are distributed across members); in other instances, team members were asked to rate the leadership of each member, and an aggregate score was used as an index of

leadership sharedness. Finally, the leader effectiveness code was assigned when measures specifically prompted team members to evaluate leader effectiveness in a particular domain, or overall. Team performance scores were not considered to be indicators of leader effectiveness, as they can be determined by a variety of additional variables beyond leadership.

Leadership variables were also coded as being primarily task-focused, social-focused, or mixed in their focus. Like team behaviors and emergent states, this involved determining whether measures captured elements relevant to the team's tasks or goals, or whether they captured aspects of social interactions and relationships. Measures capturing such things as inspirational motivation and initiating structure, therefore, were often coded as task-focused, while those capturing things such as individualized consideration and LMX quality were often considered to be social-focused. Many measures captured both task and social elements, however, thus were coded as mixed.

Team interventions. Team interventions were coded based on what they entailed. Distinctions were made between task training, team training, team building, and other non-training interventions such as facilitators or tools. Consistent with existing distinctions between taskwork and teamwork (Salas, Cooke, & Rosen, 2008), training that focused on preparing team members to perform the actual team task was coded as team training, while that focused on developing the attitudes, behaviors, and cognitions that affect *how* teams perform their tasks were coded as team training. Additionally, the team building code was utilized when interventions focused on improving social interactions and interpersonal relationships (Shuffler, DiazGranados, & Salas, 2011). Thus, while task and team training typically included the use of training strategies to develop certain competencies, team building often involved some sort of

shared team experience or personal disclosure activity. Finally, the facilitator/tool code was when other types of team interventions were utilized, such as a group decision support system, or the presence of a facilitator during team meetings.

Situational variables. A variety of additional variables that characterize the context in which teams operate were also coded. Some were very straightforward, such as team tenure (i.e., how long the team had been together) and team size (i.e., how many members comprised the team). The interdependence code was utilized when measures captured the extent to which team members are required to work together or interact with one another to accomplish the task objectives (Gully, et al., 1995); these measures were often directly labeled as such. Measures that assessed the degree of control team members have over the way they perform the task and manage the team where coded as autonomy. This included direct measures of autonomy, as well as others with comparable operationalizations, such as task flexibility and task control. Measures of task structure and goal-path clarity were also included in this category, after being reverse-coded, as they captured a *lack* of autonomy in the way tasks are performed.

The resources code was utilized when measures captured the availability of contextual features that could contribute to the team's ability to carry out their task objectives – things like information, equipment, and psychologically supportive conditions. In contrast, measures that assessed things that may have hindered the team's success were coded as challenges. This included such things as level of workload, task or role ambiguity, task complexity, and goal difficulty. The task importance code was used when measures involved the extent to which the team's task was perceived to be significant, important, or prestigious. Finally, the communication richness code was used to capture just that – the extent to which team members

communicated through rich mediums (Hambley, et al., 2007). Cases where communication between team members was *not* rich, such as when they communicated through virtual mediums or when members were distributed, were reverse coded in order to fit with the richness category.

Analyses

There are two overarching approaches to conducting meta-analyses – those based on fixed-effects models, and those based on random-effects models (Hedges & Vevea, 1998). Fixed-effects models view effect size parameters as fixed, but unknown constants, assuming that there is one true population effect size that is the same in all studies included in the meta-analysis (i.e., the *homogeneous* case; Hedges & Vevea, 1998; Field, 2001). Conversely, random-effects models view effect size parameters as though they are a random sample from a population of effect size parameters, meaning that the population effect sizes can vary from study to study (i.e., the *heterogeneous* case). The assumptions of each approach have implications for the type of inferences that can be drawn on the basis of the meta-analysis. Fixed-effect models enable the researcher to make conditional inferences, where results can only be applied to the set of studies that are observed, or included in the meta-analysis, and do not provide insight about studies that were not included or that may be conducted in the future (Hedges & Vevea, 1998). Random-effects models, in contrast, allow for non-conditional inferences, where the researcher can generalize findings beyond the observed studies, and can use such studies to draw conclusions about the broader population of interest.

As argued by Field (2001, p. 162), "the random-effects model is probably more realistic than the fixed-effects model on the majority of occasions (especially when the researcher wishes to make general conclusions about the research domain as a whole and not restrict his or her

findings to the studies included in the meta-analysis)." Thus, considering the assumptions and corresponding inferences of each approach, the current study utilized Hunter and Schmidt's (2004) meta-analytic procedures, which are grounded in the random-effects model. If sufficient information was available, effect sizes were corrected individually for unreliability in both the antecedent measures and the cohesion measures, utilizing alpha coefficients. When alpha coefficients were not provided, mean reliabilities of similar measures were imputed in order to make corrections. If multiple effect sizes pertaining to the same variables were available within a single sample, composite effect sizes (Nannally, 1978) were calculated to combine effects so that they were not analyzed in the same manner as effect sizes generated from independent samples. In cases where the information necessary to generate a composite was not available, the mean of the effect sizes was calculated. When composites or averages were utilized, the reliabilities of the corresponding measures were also combined using the Spearman-Brown formula, which provides a reliability estimate of the combined effect sizes. Finally, in line with the Hunter and Schmidt (2004) approach, meta-analyses were calculated using a weighted mean estimate of the overall effect size, where each independent sample's effect size was weighted by its sample size. For the team interventions category of antecedents, *d*'s were used as the effect size instead of *r*'s in order to reflect the *change* in cohesion scores that resulted from team interventions rather than the *relationship* between the intervention and cohesion. Effect sizes were weighted by the reciprocal of the sampling variance (Hedges & Olkin, 1985). Procedures described by Morris and Deshon (2002) were first utilized to ensure that effect sizes were all on a common metric (i.e., repeated measures *d*) before they were combined.

Table 4: Coding Scheme

Conceptual Categories	**Codes**
Article number	
Year	
Independent sample number	
Sample type	1. Employed adults 2. College students 3. Community sample of adults 4. Military 5. Mixed
Gender	1. All female 2. All male 3. Mixed
Country/continent of sample	1. U.S. 2. North American – non U.S. 3. South America 4. Europe 5. Africa 6. Middle East 7. Asia 8. Australia 9. Mixed
Level of analysis	1. individual 2. group
Sample size (individuals)	
Sample size (teams)	
Team type	1. ad hoc 2. in tact
Type of cohesion	1. task 2. social 3. group pride 4. composite
Cohesion measure, description	
Cohesion measure, number of items	
Cohesion measure, reliability	
Antecedent	1. team behavior 2. emergent state 3. team composition 4. leadership 5. team intervention 6. situational variable
If team behavior, what type?	1. cognitive

Conceptual Categories	Codes
	2. affective 3. behavioral
If team behavior, what focus?	1. social-focused 2. task-focused
Specific team process type	1. transition process 2. action process 3. interpersonal process 4. communication/information-sharing 5. cooperation 6. conflict 7. workload sharing
If emergent state, what type?	1. cognitive 2. affective 3. behavioral
If emergent state, what focus?	1. social-focused 2. task-focused
Specific emergent state type	1. shared cognition 2. collective efficacy 3. trust 4. identity 5. teamwork climate 6. taskwork climate 7. friendship/liking 8. team member exchange
If team composition, what type?	1. surface-level 2. deep-level
Specific team composition type	1. personality 2. attitudes/values 3. abilities/skills/experiences
If leadership, what type?	1. social-focused 2. task-focused
Specific leadership type	1. leader behaviors 2. leader traits 3. leader relations 4. shared leadership 5. leader effectiveness
Specific situational variable type	1. team size 2. task/goal interdependence 3. task/team autonomy 4. team tenure 5. challenge/demands 6. resources

Conceptual Categories	**Codes**
	7. communication richness 8. task importance
Antecedent measure, description	
Antecedent measure, number of items	
Antecedent measure, reliability	
Type of effect size	
Effect size	
R	

CHAPTER FOUR: FINDINGS

In the following sections, I present the results of my meta-analyses. First, I describe the results of my literature searches, as well as characteristics of articles that were excluded from analyses. I then describe the meta-analytic results, detailing whether or not each hypothesis was supported.

Hypothesis Testing

Below are the meta-analytic results pertaining to each hypothesis. Relationships are considered to be significant if the 95% confidence interval does not include zero. When compared, relationships are considered to be statistically different from one another if their respective 95% confidence intervals do not overlap with each other.

As noted in the Methods section, cohesion, and other variables that can be considered antecedents of cohesion, have been examined at both the individual- and team-levels of analysis, which can present an issue for meta-analysis. Specifically, effects at the team level may be underestimated when weighted sample sizes are used, as team studies often include smaller sample sizes than individual-level studies (Beal, et al., 2003). Previous meta-analyses have dealt with this issue, ultimately examining level of analysis as a potential moderating variable. Hulsheger, Anderson, and Salgado (2009), for example, describe three types of studies which they label Type 1 designs, Type 2 designs, and Type 3 designs. Specifically, Type 1 designs investigate individual-level variables, such as personality or ability, and their relationships with another construct at the individual level (in this case, individual-level perceptions of cohesion).

Type 2 designs examine the impact of team-level antecedents on team-level variables. Finally, Type 3 designs examine individuals' perceptions of team-level antecedents and link them to individual-level outcomes. To manage these discrepancies, the authors examined the level of analysis as a potential moderating variable. That is, levels were combined in their overall analysis examining the primary relationship of interest, and later separated out for moderator analyses. In another meta-analysis, Tannenbaum and Cerasoli (2013) took a similar approach – levels were combined in analyzing the overall relationship between debriefs and effectiveness, and then separated out to examine level of analysis as potential moderator variable.

Consistent with these studies, I utilized a similar approach. Overall relationships between antecedents and cohesion were first examined, then were separated out to determine if level of analysis moderated such relationships. If moderation was not evident, remaining hypotheses analyses were conducted using a combination of levels. Though hypotheses were not put forth regarding level of analysis and in many cases cohesion type, additional exploratory analyses pertaining to these variables were conducted and included in the tables.

Team Behaviors

Hypotheses 1a-h proposed that team behaviors of various types would demonstrate positive relationships with cohesion (with the exception of conflict, which was expected to show a negative relationship). As depicted in Table 5, team behaviors did in fact show positive, significant meta-analytic correlations with cohesion (whereas conflict did show a negative relationship, as expected). These relationships were upheld at both the individual- and the team-levels of analyses. More specifically, overall $\hat{\rho}$'s ranged from -.24 to .56, showing that behaviors can have relatively small to large relationships with cohesion. While correlations ranged in size,

only a few significant differences were found. Specifically, both communication/information-sharing ($\hat{\rho}$ = .56, 95% CI [.42, .54]) and workload sharing ($\hat{\rho}$ = .53, 95% CI [.38, .50]) demonstrated stronger relationships with cohesion than did interpersonal processes ($\hat{\rho}$ = .28, 95% CI [.12, .36]) and conflict ($\hat{\rho}$ = -.24, 95% CI [-.13, -.28]). Cooperation ($\hat{\rho}$ = .55, 95% CI [.33, .57]) was also more strongly related to cohesion than was conflict. Finally, the link between interpersonal processes and cohesion was stronger than that between conflict and cohesion. While the relationships between team processes and cohesion remained significant, and did not significantly differ across both social and task cohesion, in most instances, group pride was not examined frequently enough to either be examined or did not reach significance. Thus, Hypotheses 1a-h were supported.

Emergent States

Hypotheses 2a-g proposed that various emergent states would exhibit positive relationships with cohesion. As shown in Table 6, such relationships did indeed emerge, at both the individual- and the team-level. Overall $\hat{\rho}$'s ranged from .41 to .55. Interestingly, no significant differences emerged across the different types of emergent states, and all showed moderate to strong relationships with cohesion, suggesting that they are equally important. Again, significant relationships were upheld across both social and task cohesion when they could be examined, and in same cases, even for group pride despite the low number of independent samples analyzed. There were not significant differences across cohesion types. Therefore, support was found for Hypotheses 2a-g.

Affective, Behavioral, and Cognitive Team Processes and Emergent States

Hypothesis 3a states that affective team processes/emergent states will have a stronger positive relationship with cohesion than behavioral or cognitive team processes/emergent states. While affective variables did show a stronger relationship with cohesion ($\hat{\rho}$ = .47, 95% CI [.39, .44]) than did behavioral ($\hat{\rho}$ = .43, 95% CI [.33, .41]) and cognitive variables ($\hat{\rho}$ = .39, 95% CI [.22, .43]), differences were not statistically significant, thus Hypothesis 3a was not supported (see Table 6). Similarly, Hypothesis 3b proposed that behavioral team process/emergent states would have a stronger positive relationship with cohesion than would cognitive team processes/emergent states. Again, while the correlations were in the expected direction, differences were not significant, as indicated above. Therefore, Hypothesis 3b was not supported.

Social-Focused and Task-Focused Team Processes and Emergent States

Hypothesis 4a hypothesized that social-focused team processes/emergent states would have a stronger positive relationship with social cohesion than with task cohesion. As depicted in Table 6, significant differences did not emerge in the relationships between social-focused variables and social cohesion, as compared to task cohesion, thus Hypothesis 4a was not supported. Similarly, Hypothesis 4b stated that task-focused team processes/emergent states would have a stronger positive relationship with task cohesion than with social cohesion. Again, no significant differences were found, failing to support Hypothesis 4b. Finally, Hypothesis 4c proposed that social- and task-focused team processes/emergent states would have comparable relationships with group pride. This hypothesis was not supported either, as social-focused variables showed a positive relationship with group pride ($\hat{\rho}$ = .39, 95% CI [.15, .53]), while the

relationship between task-focused variables and group pride was not significant ($\hat{\rho}$ = .28, 95% CI [-.04, .54])

Team Composition

Hypotheses 5a-d hypothesized that team composition variables would show significant relationships with cohesion. As depicted in Table 8, team composition variables were analyzed first overall, and then in accordance with the way in which they were examined in each study (e.g., as an indicator of similarity among team members, as an indicator of diversity among team members, as a minimum or maximum level of a particular composition variable within a team, or at the individual level, reflecting individual differences). Because different indices capture different aspects of composition, I broke them down by index type; when examined this way, each type did in fact exhibit significance. While similarity ($\hat{\rho}$ = .24, 95% CI [.15, .29]), minimum/maximum scores ($\hat{\rho}$ = .33, 95% CI [.13, .46]), and individual-level variables ($\hat{\rho}$ = .18, 95% CI [.11, .31]) each showed positive relationships with cohesion, diversity showed a negative relationship ($\hat{\rho}$ = -.14, 95% CI [-.18, -.10]).

Interestingly, the relationship between team composition variables and social ($\hat{\rho}$ = .11, 95% CI [.05, .15]) and task cohesion ($\hat{\rho}$ = .22, 95% CI [.13, .24]) individually was significant, even when all indices were combined. Further, a similar pattern of results emerged across social and task cohesion for similarity, minimum/maximum scores, and individual level variables, and did not differ across cohesion type. However, diversity was not significantly related to either social or task cohesion. A similar pattern of results emerged for the specific types of composition, personality and attitudes/abilities. For surface-level variables ($\hat{\rho}$ = -.22, 95% CI [-

.26, -.17]) and attitudes/values ($\hat{\rho}$ = -.11, 95% CI [-.22, .-.02]), however, diversity demonstrated a negative relationship with cohesion. Overall, surface-level variables ($\hat{\rho}$ = -.22, 95% CI [-.26, -.17]), personality ($\hat{\rho}$ = .22, 95% CI [.14, .23]), and attitudes/values ($\hat{\rho}$ = .15, 95% CI [.08, .18]) showed significant relationships with cohesion, providing support for Hypotheses a-c. On the other hand, the link between abilities/competencies and cohesion ($\hat{\rho}$ = .05, 95% CI [-.01, .09]), provided only partial support for Hypothesis d, as the similarity index did reach significance ($\hat{\rho}$ = .14, 95% CI [.02, .22]).

Hypotheses 5e-f proposed that the relationship between surface-level composition variables and cohesion would be stronger in ad-hoc than in intact teams, and conversely, that the relationship between deep-level composition variables and cohesion would be stronger in intact than in ad-hoc teams. As shown in Table 8, the relationship between surface-level variables and cohesion did not reach significance within ad-hoc teams, thus could not be compared to that within intact teams. Thus, Hypotheses 5e was not supported. The relationship between deep-level variables and cohesion did not significantly differ in intact as compared to ad-hoc teams, failing to support Hypotheses 5f as well.

Leadership

Hypotheses 6a-e hypothesized that a variety of leadership variables would demonstrate a positive relationship with cohesion. As shown in Table 9, leader behaviors ($\hat{\rho}$ = .44, 95% CI [.36, .41]), leader effectiveness ($\hat{\rho}$ = .48, 95% CI [35, .48]), leader relations ($\hat{\rho}$ = .26, 95% CI [.12, .34]), and shared leadership ($\hat{\rho}$ = .39, 95% CI [.17, .52]) also showed positive relationships with cohesion, providing support for Hypotheses a, c, d, and e. However, leader traits were not

significantly related to cohesion, thus Hypothesis b was not supported. Relationships were consistent across the individual- and team-levels of analysis.

Hypotheses 6f-g proposed that task-focused leadership variables would have a stronger positive relationship with task cohesion and group pride than with social cohesion. These hypotheses were not supported, as task-focused leadership demonstrated comparable relationships with both task ($\hat{\rho}$ = .31, 95% CI [.18, .34]) and social ($\hat{\rho}$ = .32, 95% CI [.22, .33]) cohesion. Unfortunately, enough cases were not available to evaluate group pride. Conversely, Hypotheses 6h-i hypothesized that social-focused leadership variables would have a stronger positive relationship with social cohesion than with task cohesion and group pride. Social-focused leadership did indeed show a stronger relationship with social cohesion ($\hat{\rho}$ = .34, 95% CI [.19, .38]) than with task cohesion, as the relationship with task cohesion was not significant. Again, group pride could not be examined.

Team Interventions

Hypotheses 7a-d proposed that various team interventions would exhibit positive relationships with cohesion. While there was a low number of studies in this category, each intervention type did in fact reach significance. As shown in Table 10, *d*'s ranged from .40 to 72. No significant differences were found across the intervention types – task training, team training, team building, and facilitator/tool. Thus, hypotheses 7a-d were supported.

Situational Variables

Hypotheses 8a-h stated that the situational variables interdependence, autonomy, team tenure, resources, task importance, and communication richness would have positive

relationships with cohesions, while team size and challenge would have negative relationships. As shown in Table 11, with the exception of challenge, which was just short of reaching significance ($\hat{\rho}$ = -.10, 95% CI [-.19, -.00]), these hypotheses were supported. $\hat{\rho}$'s ranged from -.08 to 35. No significant differences emerged in the magnitude of the relationships across situational variable type.

A summary of hypotheses and corresponding support can be found in Table 12.

Table 5: Meta-analytic relationships between team behaviors and cohesion

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Transition processes	13	2,033	.32	.37	.29	.17	.46	-.00	.74
Individual-level	6	1,598	.26	.31	.29	.06	.47	-.06	.68
Team-level	7	435	.52	.59	.18	.38	.66	.36	.82
Social cohesion	4	672	.46	.55	-	.39	.53	-	-
Action processes	25	5,787	.37	.44	.20	.30	.44	.19	.69
Individual-level	13	4,648	.35	.42	.20	.25	.45	.16	.68
Team-level	12	1,139	.42	.48	.30	.26	.58	.09	.87
Social cohesion	12	2,625	.43	.51	.12	.35	.50	.35	.67
Task cohesion	2	1,324	.29	.33	.15	.09	.49	.13	.52
Interpersonal processes	27	5,934	.24	.28	.35	.12	.36	-.18	.73
Individual-level	15	5,130	.37	.44	.35	.21	.52	-.00	.89
Team-level	12	804	.61	.69	.18	.50	.73	.45	.92
Social cohesion	14	1,373	.49	.55	.21	.38	.60	.27	.82
Task cohesion	6	2,119	.31	.41	.14	.21	.42	.23	.58
Group pride	3	263	.27	.32	-	.00	.54	-	-
Communication/info-sharing	48	9,175	.48	.56	.22	.42	.54	.27	.85
Individual-level	28	7,678	.46	.54	.20	.39	.52	.29	.79
Team-level	20	1,497	.58	.68	.32	.45	.71	.26	1.09
Social cohesion	22	5,150	.46	.54	.24	.37	.55	.23	.85
Task cohesion	4	429	.57	.68	.24	.35	.80	.38	.99
Cooperation	9	1016	.45	.55	.18	.33	.57	.32	.79
Individual-level	2	308	.28	.34	-	.27	.30	-	-
Team-level	7	708	.52	.64	.15	.40	.65	.45	.84
Social cohesion	3	347	.32	.40	.05	.21	.43	.34	.47
Task cohesion	4	433	.52	.63	.21	.32	.72	.36	.91
Conflict	41	6,945	-.21	-.24	.25	-.13	-.28	.08	-.57

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Individual-level	15	4,759	-.18	-.21	.16	-.10	-.25	.00	-.42
Team-level	26	2,186	-.27	-.31	.37	-.14	-.40	.16	-.79
Social cohesion	18	3,843	-.18	-.20	.25	-.07	-.28	.12	-.52
Task cohesion	7	1,384	-.17	-.20	.16	-.05	-.26	.01	-.41
Group pride	3	373	-.09	-.10	.15	.09	-.27	.09	-.29
Workload sharing	42	7,897	.44	.53	.23	.38	.50	.23	.82
Individual-level	23	6,581	.41	.49	.21	.33	.48	.21	.76
Team-level	19	1,316	.62	.72	.20	.53	.71	.46	.98
Social cohesion	22	3,482	.49	.60	.20	.41	.57	.34	.85
Task cohesion	6	611	.50	.59	-	.46	.54	-	-
Group pride	2	160	.29	.37	-	-.16	.74	-	-

Note. k= number of correlations; N= total sample size; r= average uncorrected correlation; ρ= average true score correlation; CI= confidence interval; CV= credibility interval

Table 6: Meta-analytic relationships between emergent states and cohesion

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Shared knowledge	16	2,538	.35	.41	.19	.26	.44	.17	.66
Individual-level	4	1,429	.31	.37	.23	.12	.51	.07	.66
Team-level	12	1,109	.40	.47	.12	.32	.48	.32	.62
Social cohesion	11	1,775	.28	.32	.16	.19	.38	.11	.54
Collective efficacy	48	3,660	.48	.55	.22	.42	.54	.27	.83
Individual-level	7	984	.50	.57	.17	.38	.63	.35	.79
Team-level	41	2,676	.47	.54	.23	.40	.54	.24	.84
Social cohesion	26	2,067	.47	.54	.24	.38	.56	.23	.85
Task cohesion	10	657	.62	.71	.24	.48	.77	.40	1.02
Group pride	3	360	.35	.42	.17	.16	.55	.20	.64
Trust	48	11,550	.40	.46	.22	.34	.45	.18	.73
Individual-level	29	7,323	.45	.52	.22	.37	.52	.24	.29
Team-level	19	4,227	.31	.35	.18	.24	.39	.12	.58
Social cohesion	14	1,899	.44	.53	.37	.27	.61	.06	.98
Task cohesion	8	1,183	.55	.62	.09	.47	.62	.51	.73
Group pride	2	277	.37	.43	-	.33	.41	-	-
Identity	46	11,555	.39	.46	.13	.36	.43	.29	.63
Individual-level	35	10,559	.38	.45	.12	.34	.42	.29	.61
Team-level	11	996	.52	.60	.14	.43	.61	.42	.79
Social cohesion	26	7,070	.37	.44	.11	.33	.42	.30	.58
Task cohesion	3	735	.41	.50	.05	.32	.50	.43	.57
Teamwork climate	18	4,586	.37	.43	.20	.29	.46	.17	.69
Individual-level	14	4,220	.37	.43	.21	.27	.47	.15	.70
Team-level	4	366	.45	.50	.05	.35	.54	.44	.56
Social cohesion	13	3,839	.32	.37	.18	.23	.41	.14	.60
Task cohesion	3	645	.41	.51	.10	.30	.52	.38	.63

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
									.79
Taskwork climate	37	7,186	.45	.54	.20	.39	.51	.29	
Individual-level	17	6,140	.45	.54	.20	.37	.54	.28	.79
Team-level	20	1,046	.46	.55	.18	.37	.54	.33	.78
Social cohesion	9	1,562	.45	.51	.32	.26	.64	.10	.93
Task cohesion	5	673	.48	.55	-	.42	.55	-	-
Friendship/liking	12	851	.39	.43	.19	.28	.51	.19	.68
Individual-level	6	494	.38	.41	.22	.20	.55	.13	.68
Team-level	6	357	.42	.47	.14	.29	.55	.30	.64
Social cohesion	6	385	.42	.46	.15	.28	.55	.27	.64
Task cohesion	3	314	.52	.59	.17	.32	.72	.37	.81
Team Member Exchange	17	2,138	.48	.56	.18	.40	.57	.33	.79
Individual-level	6	1,536	.51	.57	.11	.41	.60	.43	.71
Team-level	11	602	.63	.75	.11	.54	.72	.61	.89
Social cohesion	15	1,661	.57	.66	.07	.51	.63	.56	.75

Note. K= number of correlations; N= total sample size; r= average uncorrected correlation; ρ= average true score correlation; CI= confidence interval; CV= credibility interval

Table 7: Meta-analytic relationships between social- and task-focused and affective, cognitive, and behavioral team processes and emergent states and cohesion

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Social-focused	82	17,935	.34	.39	.26	.29	.39	.07	.72
Individual-level	50	15,539	.31	.36	.26	.25	.38	.04	.69
Team-level	32	2,396	.51	.58	.16	.45	.57	.38	.79
Social cohesion	43	8,465	.37	.43	.19	.32	.43	.18	.67
Task cohesion	14	3,222	.39	.48	.16	.31	.47	.26	.69
Group pride	4	430	.34	.39	.21	.15	.53	.13	.66
Task-focused	197	33,550	.42	.48	.24	.38	.45	.17	.79
Individual-level	83	25,636	.40	.46	.22	.36	.45	.18	.74
Team-level	114	7,914	.46	.53	.26	.42	.51	.21	.86
Social cohesion	103	17,608	.41	.47	.28	.36	.46	.11	.84
Task cohesion	26	3,898	.42	.48	.20	.35	.50	.22	.74
Group pride	7	790	.25	.28	.43	-.04	.54	-.27	.84
Affective	165	32,472	.41	.47	.18	.39	.44	.24	.71
Individual-level	76	19209	.43	.50	.18	.39	.47	.27	.72
Team-level	89	13263	.39	.44	.19	.35	.43	.20	.68
Social cohesion	72	13,457	.40	.46	.20	.36	.44	.20	.72
Task cohesion	28	3,541	.53	.60	.14	.47	.58	.42	.77
Group pride	6	720	.38	.44	.11	.28	.49	.30	.58
Cognitive	12	2,217	.33	.39	.20	.22	.43	.13	.64
Individual-level	6	1,557	.21	.25	.14	.10	.31	.08	.43
Team-level	6	660	.36	.44	.16	.23	.49	.23	.64
Social cohesion	8	1,534	.23	.26	.15	.13	.33	.07	.45
Behavioral	161	29,550	.37	.43	.29	.33	.41	.06	.81
Individual-level	78	23456	.34	.39	.26	.29	.39	.06	.73
Team-level	83	6,094	.48	.55	.35	.41	.55	.11	.99
Social cohesion	83	12,835	.43	.50	.25	.38	.48	.18	.82

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Task cohesion	21	5,399	.32	.39	.18	.26	.39	.17	.61
Group pride	5	533	.15	.18	.26	-.06	.37	-.16	.51

Note. k= number of correlations; N= total sample size; r= average uncorrected correlation; ρ= average true score correlation; CI= confidence interval; CV= credibility interval

Table 8: Meta-analytic relationships between team composition variables and cohesion

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Overall									
Similarity	53	3,613	.22	.24	.25	.15	.29	-.07	.56
Diversity	59	14,567	-.14	-.14	.17	-.18	-.10	-.36	.08
Min/max	7	243	.29	.33	.18	.13	.46	.10	.56
Individual-level	43	14,298	.16	.18	.18	.11	.21	-.05	.41
Social cohesion	78	10,598	.10	.11	.22	.05	.15	-.17	.40
Similarity	39	2,175	.25	.27	.28	.16	.33	-.09	.63
Diversity	30	3,638	-.07	-.07	.21	-.14	.01	-.34	.20
Min/max	6	199	.19	.22	-	.10	.27	-	-
Individual-level	19	5,254	.15	.18	.14	.09	.21	.00	.35
Task cohesion	21	3,093	.18	.22	.13	.13	.24	.05	.38
Similarity	9	1,233	.23	.26	.21	.11	.36	-.00	.53
Diversity	7	679	.06	.06	.16	-.07	.19	-.15	.26
Min/max	3	93	.50	.58	-	.27	.74	-	-
Individual-level	9	1,680	.15	.18	.08	.08	.21	.08	.28
Group pride	3	363	.10	.13	.16	-.08	.29	-.08	.34
Surface-level variables									
Overall	28	8,570	-.21	-.22	.12	-.26	-.17	-.07	-.37
Ad-hoc teams	5	319	-.04	-.05	.10	-.18	.10	-.18	.09
Intact teams	23	8,251	-.22	-.22	.11	-.27	-.17	-.37	-.08
Similarity	5	128	.19	.20	-	.07	.30	-	-
Diversity	23	8,442	-.22	-.22	.11	-.26	-.17	-.36	-.09
Deep-level variables	128	51,905	.06	.07	.14	.04	.09	-.11	.25
Ad-hoc teams	17	1,617	.09	.11	.13	.02	.17	-.05	.28
Intact teams	111	50,288	.06	.07	.14	.04	.09	-.11	.25
Personality	51	6,764	.19	.22	.15	.14	.23	.02	.42
Similarity	18	1,133	.26	.29	.10	.19	.33	.16	.41
Diversity	10	598	.04	.04	.24	-.12	.19	.35	-.27
Min/max	4	140	.25	.28	-	.14	.36	-	-

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Individual-level	15	4,608	.18	.22	.15	.13	.25	.03	.41
Attitudes/Values	49	10,785	.13	.15	.17	.08	.18	-.06	.37
Similarity	21	1,729	.22	.24	.25	.12	.33	-.07	.56
Diversity	12	2,745	-.10	-.11	.23	-.22	-.02	-.40	.18
Individual-level	20	7,086	.20	.23	.13	.14	.25	.06	.40
Abilities/Competencies	64	6,550	.04	.05	.20	-.01	.09	.21	.30
Similarity	29	1,612	.12	.14	.26	.02	.22	-.20	.47
Diversity	31	2,392	.00	.00	.09	-.04	.05	-.11	.11
Min/max	4	154	.22	.24	.33	-.10	.54	-.17	.66
Individual-level	11	3,039	.03	.04	.23	-.09	.15	-.25	.33

Note. k= number of correlations; N= total sample size; r= average uncorrected correlation; ρ= average true score correlation; CI= confidence interval; CV= credibility interval

Table 9: Meta-analytic relationships between leadership variables and cohesion

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Leader behaviors	70	46,698	.39	.44	.10	.36	.41	.30	.57
Individual-level	44	45,129	.39	.44	.10	.36	.42	.31	.56
Team-level	26	1,569	.43	.47	.21	.34	.51	.20	.73
Social cohesion	27	5,129	.32	.36	.17	.26	.38	.15	.58
Task cohesion	8	2,165	.27	.33	.20	.14	.40	.07	.58
Leader traits	7	1,469	.10	.12	.02	-.02	.22	-.09	.32
Individual-level	4	1,277	.09	.10	.06	.01	.16	.03	.18
Team-level	3	192	.19	.23	.40	-.25	.63	-.28	.74
Leader effectiveness	22	9,345	.42	.48	.16	.35	.48	.28	.69
Individual-level	14	8,828	.41	.48	.16	.33	.49	.27	.69
Team-level	8	517	.44	.49	.11	.34	.54	.36	.63
Social cohesion	4	1,663	.35	.40	.01	.28	.42	.32	.47
Task cohesion	4	1,491	.16	.18	.13	.03	.29	.01	.34
Leader relationships	20	9,549	.23	.26	.28	.12	.34	-.09	.62
Individual-level	16	9,270	.23	.26	.29	.11	.35	-.11	.63
Team-level	4	279	.38	.41	.08	.25	.51	.31	.52
Team/shared leadership	12	678	.35	.39	.33	.17	.52	-.03	.80
Individual-level	2	210	.52	.57	.21	.22	.82	.30	.84
Team-level	10	468	.27	.31	.33	.07	.46	-.11	.73
Social-focused leadership	31	38,095	.39	.44	.16	.34	.44	.23	.65
Individual-level	23	37,716	.39	.44	.16	.33	.45	.23	.65
Team-level	8	379	.36	.40	.07	.25	.46	.31	.50
Social cohesion	12	1,819	.28	.34	.02	.19	.38	.12	.55
Task cohesion	3	662	.11	.13	.10	-.01	.22	.01	.25
Task-focused leadership	59	43,725	.24	.29	.14	.21	.28	.11	.46
Individual-level	34	42,316	.24	.28	.13	.20	.28	.11	.45
Team-level	25	1,409	.40	.45	.18	.32	.48	.22	.67
Social cohesion	24	5,247	.27	.32	.15	.22	.33	.13	.51

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Individual-level	15	4,833	.27	.31	.14	.20	.34	.14	.49
Team-level	9	414	.33	.36	.24	.16	.50	.05	.67
Task cohesion	11	2,674	.26	.31	.14	.18	.34	.13	.49
Individual-level	5	2,168	.22	.28	.12	.12	.33	.12	.43
Team-level	6	506	.41	.45	.10	.30	.52	.31	.58
Mixed leadership	74	51,675	.39	.44	.11	.37	.42	.30	.58
Individual-level	47	50,084	.39	.44	.10	.36	.42	.31	.57
Team-level	27	1,591	.41	.45	.24	.32	.50	.15	.75
Social cohesion	28	8,122	.29	.33	.15	.23	.34	.14	.53
Individual-level	17	7,504	.28	.33	.15	.21	.35	.13	.52
Team-level	11	618	.40	.43	.13	.30	.49	.27	.49
Task cohesion	6	700	.34	.36	.25	.14	.54	.05	.68
Individual-level	2	388	.25	.28	.10	.09	.41	.15	.40
Team-level	4	312	.45	.47	.32	.14	.75	.06	.88

Note. k= number of correlations; N= total sample size; r= average uncorrected correlation; ρ= average true score correlation; CI= confidence interval; CV= credibility interval

Table 10: Meta-analytic relationships between team interventions and cohesion

	k	*N*	*d*	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Task training	12	530	.41	.99	1.79	1.02	1.76
Team training	5	603	.48	.51	.03	.49	.01
Team building	9	665	.72	.51	.03	.49	.01
Facilitator/tool	4	498	.40	.48	1.76	1.71	.53

Note. k= number of effect sizes; N= total sample size; d= average effect size; CI= confidence interval; CV= credibility interval

Table 11: Meta-analytic relationships between situational variables and cohesion

	k	*N*	*r*	$\hat{\rho}$	SDρ	95% CI_L	95% CI_U	80% CV_L	80% CV_U
Team size	71	16,426	-.08	-.08	.12	-.11	-.04	-.24	.08
Individual-level	18	6,241	-.04	-.04	.15	-.11	.03	-.24	.16
Team-level	53	10,185	-.10	-.10	.09	-.13	-.07	-.22	.02
Task/goal interdependence	27	3,534	.16	.20	.20	.09	.23	-.05	.45
Individual-level	10	2,390	.11	.15	.18	.02	.21	-.08	.38
Team-level	17	1,144	.26	.32	.19	.16	.36	.07	.56
Task autonomy	30	6,814	.26	.32	.24	.19	.34	.02	.63
Individual-level	13	5,368	.27	.34	.26	.15	.39	.00	.67
Team-level	17	1,446	.23	.27	.19	.13	.32	.02	.51
Team tenure	20	2,881	.16	.17	.22	.07	.26	-.11	.46
Individual-level	7	2,006	.23	.25	.19	.09	.37	-.00	.50
Team-level	13	875	.01	.01	.20	-.11	.13	-.25	.27
Challenge/demands	42	10,963	-.09	-.10	.37	-.19	-.00	-.57	.37
Individual-level	23	9,278	-.13	-.14	.38	-.26	-.00	-.63	.34
Team-level	19	1,1685	.12	.14	.24	.01	.22	-.17	.45
Resources	12	4,018	.27	.33	.21	.16	.37	.06	.60
Individual-level	7	3,319	.28	.35	.23	.14	.43	.05	.65
Team-level	5	699	.19	.22	.09	.09	.29	.11	.33
Communication richness	17	2,198	.35	.40	.22	.24	.46	.11	.09
Individual-level	6	1,575	.39	.44	.13	.26	.53	.27	.61
Team-level	11	623	.25	.29	.30	.07	.43	-.09	.67
Task importance/prestige	9	829	.27	.29	.16	.15	.39	.08	.50
Individual-level	4	418	.32	.34	.15	.15	.49	.14	.53
Team-level	5	411	.22	.24	.15	.07	.37	.05	.43

Note. k= number of correlations; N= total sample size; r= average uncorrected correlation; ρ= average true score correlation; CI= confidence interval; CV= credibility interval

Table 12: Summary of findings

Hypothesis	**Description**	**Findings**
Hypothesis 1a-h	Team processes (i.e., (a) communication/information-sharing, (b) workload sharing, (c) cooperation, (d) transition processes, (e) action processes, (f) interpersonal processes) have a positive relationship with cohesion; (g) conflict has a negative relationship with cohesion	Supported
Hypothesis 2a-g	Emergent states (i.e., (a) trust, (b), identity, (c) shared knowledge, (d) teamwork climate, (e) taskwork climate, (f) collective efficacy, (g) friendship/liking, and (h) team member exchange have a positive relationship with cohesion	Supported
Hypothesis 3a	Affective team processes/emergent states have a stronger positive relationship with cohesion than do behavioral or cognitive team processes/emergent states	Not supported
Hypothesis 3b	Behavioral team process/emergent states have a stronger positive relationship with cohesion than do cognitive team processes/emergent states	Not supported
Hypothesis 4a	Social-focused team processes/emergent states have a stronger positive relationship with social cohesion than with task cohesion	Not supported
Hypothesis 4b	Task-focused team processes/emergent states have a stronger positive relationship with task cohesion than with social cohesion	Not supported
Hypothesis 4c	Social- and task-focused team processes/emergent states have comparable relationships with group pride	Not supported
Hypothesis 5a-d	Team composition variables [i.e., (a) surface level variables and deep level variables ((b) personality, (c) attitudes/values, and (d) abilities/skills)] have a significant relationship with cohesion	5a-c supported 5d partially supported
Hypothesis 5e	The relationship between surface-level composition variables and cohesion is stronger in ad-hoc than in in-tact teams	Not supported
Hypothesis 5f	The relationship between deep-level composition variables and cohesion is stronger in in-tact than in ad-hoc teams	Not supported
Hypothesis 6a-e	Leadership (i.e., (a) leader behaviors, (b) leader traits, (c) leader relations, (d) shared leadership, and (e) leader effectiveness) has a positive relationship with cohesion	a, c, d, e supported b not supported
Hypothesis 6f-g	Task-focused leadership variables have a stronger positive relationship with (f) task cohesion and (g) group pride than with social cohesion	f not supported g not supported (could not examine)
Hypotheses 6h-i	Social-focused leadership variables have a stronger positive relationship with social cohesion than with (h) task cohesion and (i) group pride	h supported i not supported (could not examine)
Hypothesis 7a-d	Team interventions (i.e., (a) task training, (b) team training, (c) team building, and (d) facilitator/tool) have a positive	Supported

Hypothesis	Description	Findings
	relationship with cohesion	
Hypothesis 8a-h	Situational variables (i.e., (a) interdependence, (b) autonomy, (c) team tenure, (d), resources, (e) task importance, and (f) communication richness) have a positive relationship with cohesion; (g) team size and (h) challenge have a negative relationship with cohesion	a- g supported h not supported

CHAPTER FIVE: DISCUSSION

While a wealth of research has deemed cohesion critical for team effectiveness (e.g., Evans & Dion, 1991; Mullen & Copper, 1994; Gully, Devine, & Whitney, 1995; Carron, Colman, Wheeler, & Stevens, 2002; Beal, Cohen, Burke, & McLendon, 2003; Chiocchio & Essiembre, 2009), less emphasis has been placed on understanding how to get it. Multiple studies do examine links between cohesion and variables that can be considered antecedents of cohesion, but these studies have not yet been integrated in either a theoretical or empirical manner. The purpose of this study was thus to begin addressing this gap in the literature. I conducted a series of meta-analyses to identify and explore various antecedents of cohesion, as well as moderators of antecedent-cohesion relationships. Below, I discuss major findings, identify limitations, and explore the implications of my findings for both research and practice.

Major Findings

Each of the behaviors (i.e., transition processes, action processes, interpersonal processes, communication/information-sharing, cooperation, conflict, and workload sharing) and emergent states (i.e., shared knowledge, collective efficacy, trust, identity, teamwork climate, taskwork climate, friendship/liking, team member exchange) hypothesized to influence cohesion did indeed demonstrate significant relationships in the expected directions. While a few significant differences emerged among team processes, as described in the Results section (e.g., interpersonal processes and conflict tended to show weaker relationships with cohesion than other processes), the magnitude of their relationships with cohesion generally did not differ significantly. This suggests that each of the variables examined are of relatively equal importance for cohesion. While these variables have not all been explored in relation to cohesion previously, this is consistent with prior reviews of the literature, where a number of processes

and emergent states have all been determined to play an important role in team effectiveness (e.g., Marks, et al., 2001; Kozlowski & Bell, 2003; Cannon-Bowers, 2011). Thus, like performance, it appears that cohesion can be developed through a variety of team mechanisms, and the presence of only one or two many not be sufficient, as they are all important. Exploratory analyses revealed that with a few exceptions, findings were largely consistent across levels of analysis, and both social and task cohesion. Unfortunately, group pride often could not be examined, or did not reach significance, likely due to too few cases being available.

A number of my hypotheses (H3a, H3b, 4a, 4b, 4c) proposed that the relationships between antecedents and cohesion would be stronger when they were more closely theoretically matched (e.g., affective variables would be more strongly related to cohesion than cognitive variables; social-focused variables would be more strongly related to social cohesion than to task cohesion). None of these hypotheses were supported, however. This suggests that while classifying team processes and emergent states as being task-focused or social-focused, and affective, cognitive, or behavioral may be useful schemes for facilitating theoretical understanding, these distinctions are not useful when it comes to exploring cohesion's antecedents. That is, antecedents were equally influential on cohesion regardless of their broader classification. Another possible explanation, at least for the task- versus social-focused relationships, is that many variables cannot easily be classified as one or the other due to the way they are measured in the literature. In many cases I had to classify antecedents, and even cohesion dimensions as being 'mixed,' and even those that were categorized as one or the other were based on the *closest* theoretical fit, not necessarily a perfect fit. Many times cohesion was referred to as social cohesion in the article, for example, but the measure used to assess it contained items capturing both social and task cohesion, thus had to be categorized as 'mixed.'

Therefore, contamination issues in measures, as well as instances where constructs could not theoretically be categorized as a certain type, prevented variables from being neatly classified, thus may have contributed to the lack of support for these hypotheses.

Analyses pertaining to team composition revealed a variety of interesting results. Consistent with prior literature (e.g., Harrison, Price, & Bell, 1998), demographic similarity showed a positive relationship with cohesion, while demographic diversity showed a negative relationship. Personality similarity and minimum and maximum personality scores proved to be important for cohesion at the team level, while personality as an individual difference variable demonstrated an impact on cohesion perceptions at the individual-level. Interestingly, personality diversity did not significantly influence cohesion, suggesting that while similarity in personality can be beneficial for cohesion, diversity is not detrimental. In contrast, diversity in attitudes and values had a negative influence on cohesion. This is likely because differences in this area can result in conflict among team members, reducing feelings of social bonding and attraction. Similarity, minimum/maximum scores, and individual-level indices of attitudes/values all showed positive relationships with cohesion. Finally, while similarity in abilities/competencies did positively relate to cohesion, other indices did not have an effect. While such indices may indeed be important when it comes to performance, as abilities and competencies play a direct role in performance outcomes, it appears that they are not particularly relevant for cohesion. The similarity index may have been significant simply because it reflects another similarity among team members through members can bond more easily, not necessarily because of the abilities/competencies themselves.

In contrast to prior research (e.g., Harrison, et al. 1998), the relationship between surface-level composition variables was not stronger in ad-hoc as compared to intact teams, and

conversely, that between deep-level composition variables and cohesion was not stronger in intact as compared to ad hoc teams. These results may have occurred, in part, due to disparities in the number of cases for ad hoc versus intact teams. Specifically, for surface-level variables, *k* = 5 for ad hoc teams, and 23 for intact teams. For deep-level variables, *k* = 17 for ad hoc teams and 111 for intact teams. It is also possible, of course that the relationships between these variables and cohesion simply do not change as a function of the team's lifespan. While previous research does suggest, that this is the case, only a handful of studies demonstrate this effect, using only a subset of deep- and surface-level variables. This examination encompasses a total of 156 independent samples, and a broad range of composition variables, thus may represent a more accurate depiction of the relationships of interest.

As hypothesized, leader behaviors, leader relations, shared leadership, and leader effectiveness all demonstrated positive, often moderate relationships with cohesion, suggesting that leaders are important to consider for developing team cohesion. Leader traits, however, did not emerge as significant. Though a low number of cases (k=7) may be contributing to this finding, this suggests that the leader him/herself is not necessarily what matters for cohesion, but more so, what the leader does, the quality of his/her relationships with teammates, and of course, the leader's effectiveness. Not surprisingly, shared leadership, a sharing of leadership functions across team members, also emerged as important for cohesion. Hypotheses regarding the moderating effect of leadership type (i.e., task-focused versus social-focused) were not supported. That is, task-focused leadership did not exhibit a stronger relationship with task cohesion and group pride than with social cohesion, nor did the opposite occur. Like the findings pertaining to team processes and emergent states, this indicates that these theoretical distinctions are not meaningful for understanding cohesion, or perhaps that leadership variables, either

theoretically, or due to the way they are measured, cannot be neatly classified into these categories in a manner that allows for meaningful differences to emerge. Here, findings suggest that leadership of both types is important for cohesion of both types (i.e., social and task); unfortunately group pride could not be examined.

Finally, the various team interventions and situational variables examined all demonstrated the expected relationships with cohesion, with the exception of challenge/demands. Interestingly, however, the relationship between challenge/demands did reach significance at the team-level only, where the relationship was positive instead of negative, as it was at the individual- and overall-levels. This suggests that a challenging work setting may prompt team members to unite for the sake of attaining assistance with task completion.

Implications for Research

While cohesion has been studied extensively in relation to performance, theoretical models, and corresponding empirical research pertaining to the broader nomological network surrounding cohesion, particularly its antecedents are largely absent from the literature. Indeed, Kozlowski and Ilgen (2006, pg. 89) cited the exploration of approaches through which cohesion can be enhanced as an "obvious target for research." This study begins to address these gaps in the literature. Specifically, I provide an initial theoretical model, as well meta-analytic support (or lack of support) for the various components of the model, providing a foundation for additional research. In turn, I provide a comprehensive resource for researchers interested in studying team cohesion. While several reviews and taxonomies detailing the many variables that can influence team performance are available (e.g., e.g., Marks, et al., 2001; Kozlowski & Bell, 2003; Cannon-Bowers, 2011), no such resource currently exists for team cohesion. I have now

provided such a resource by providing a meta-analytic review that summarizes current research on cohesion's antecedents and can serve as a jumping off point for additional studies.

Findings also revealed that while group pride is generally considered to be one of the three major components of cohesion (e.g., Beal, et al., 2003), it appears to be somewhat of a non-factor in the current literature. In many cases, the *k* was either not large enough, or was nonexistent for the group pride category, thus relationships between antecedents and group pride could not be examined. Group pride emerged as a significant factor in Beal and colleague's (2003) meta-analysis of the cohesion-performance relationship over 10 years ago, but even then, the *k* was only 6. It appears that since that time, researchers have continued to under-examine this cohesion dimension, at least in relation to its antecedents. Thus, my analyses reveal a specific need in the current literature – if group pride is going to continue to be viewed as a major dimension of cohesion, additional research on it is greatly needed.

The lack of research on group pride, I believe, stems in part from issues in cohesion's measurement. Specifically, by no means was the group pride construct absent from the studies I coded. However, in many cases, the measures that were utilized included items that captured group pride, as well as items that captured social cohesion and/or task cohesion, thus could not neatly be classified as group pride, and instead were coded as 'mixed' (as these items were not analyzed as separate dimensions). Thus, this research highlights a need to clean up, or decontaminate measures of cohesion being utilized in the literature. As discussed above, this relates to a possible explanation for why many of my moderator analyses focusing on the categorization of construct types were not supported. Again, relationships between antecedents and cohesion were not stronger when they were theoretically matched (e.g., social-focused processes did not relate to social cohesion more strongly than task cohesion), perhaps because

many constructs, including cohesion, cannot be easily categorized due to the ways in which they are currently defined and measured. Overall then, findings reveal a potential need to develop more distinct constructs and measures in the teams literature as a whole.

Tying It all Together: How Can We Get Cohesion in Practice?

Because of its relationship with performance and other outcomes of interest, cohesion is a desired construct in a variety of practical settings. Up to this point, however, little guidance has been available to determine how it can be facilitated. In a review of the literature, Kozlowki and Ilgen (2006, p. 89) concluded that "the research base to help identify techniques for enhancing group cohesion is as yet not sufficiently developed to warrant specific recommendations for how to develop [this] desirable emergent [state]." This research provides a foundation from which such recommendations can be derived. Findings revealed that cohesion can be facilitated to some extent through each of the mechanisms explored in this research (i.e., team processes, emergent states, team composition variables, leadership variables, team interventions, and situational variables). Further, some antecedents demonstrated stronger relationships with cohesion than others, providing insight as to where attention should be focused when enhanced cohesion is desired. For example, the influences of team behaviors and emergent states on cohesion were substantially greater than that of team composition variables. While this is fitting theoretically, as processes and states fall into the same "mediator" bucket of the IMOI model (Ilgen, et al., 2005), and compositional factors are assumed to be more distal predictors that serve as the conditions that shape teamwork, there is often an underlying assumption that the cohesion of a team is going to be strongly influenced by the people that make up that team. Results, however, suggest that less emphasis can be placed on selection and team composition, and more should be placed on ensuring that key team behaviors and emergent states are developing and functioning

appropriately. Consistent with this idea, leader behaviors, leader effectiveness, leader relationships, and team/shared leadership all demonstrated moderate relationships with cohesion, whereas leader traits were not significantly related. Thus again, processes were more important than compositional variables for the development of cohesion.

Other notable differences pertained to team interventions. Specifically, training and facilitator tools were moderately related to cohesion, while team building was strongly related. While this contradicts the common perception in the teams literature that team building is not effective, it is consistent with Shuffler and colleagues (2011) recent work which shows that team building is more strongly related to affective outcomes, while team training is more strongly related to performance outcomes. This work therefore demonstrates further evidence of the utility of team building when cohesion is the outcome of interest. Similar to behaviors and emergent states, team training and team building were also more strongly related to cohesion than were compositional variables. Therefore, while it is certainly important to have selection requirements, findings suggest that cohesion can be somewhat more effectively developed through training/team building interventions than through selection/composition initiatives. Essentially, findings suggest that team composition won't necessarily make or break a team when it comes to developing cohesion if efforts are made to build key team behaviors and emergent states, and/or to develop leaders and implement team interventions.

A number of interesting findings also emerged in relation to situational variables. For example, although the literature often discusses the negative influence of team size on cohesion, I found a relatively small relationship. Similarly, team tenure was related to cohesion, but the relationship was weaker than one might expect. In contrast, results showed that task autonomy and resources are clearly important for developing cohesion. This suggests that providing teams

with the means to be successful but allowing them to develop their own plans for getting there is an important thing that organizations can easily implement in order to increase cohesion. Communication richness was also strongly related to cohesion. This finding has implications for virtual, distributed teams – it is clearly worthwhile for organizations operating under distributed conditions to invest in media that allows for rich communication amongst team members, at least in terms of developing cohesion in teams. Given the previous meta-analyses on the cohesion-performance relationship (e.g., Beal, et al., 2003), I can speculate that this also translates into performance. Finally, task importance/prestige was also moderately related to cohesion. On the surface this suggests that "important" teams are more cohesive. However, this also suggests that communicating the importance of a task in terms of how it helps the larger organization achieve its goals can also help develop cohesion in teams. Individuals and teams have an innate desire to perform meaningful work, and thus communicating the importance of the task can help unify the team around the task.

Limitations

Like any meta-analysis, there are limitations to this research that should be addressed. Most notably, the meta-analytic correlations presented are not indicative of causality. That is, they do not provide quantitative evidence that the antecedents explored do in fact *cause* cohesion. However, the antecedents analyzed in this review were included on the basis of theory and previous empirical findings (see chapter 2), providing support for the notion that they precede cohesion. Thus, while they can be considered antecedents of cohesion from a theoretical standpoint, the data presented support associative relationships, not causal ones. Another major drawback is that findings are dependent in part on the quality of the studies included in the analyses. Because meta-analyses are meant to be inclusive of all of the literature in a particular

domain, they include a range of study types, varying in their degrees of academic rigor. Thus, while I made efforts to utilize rigorous research approaches (e.g., research- and theory-grounded coding categories; discussion of coding categories and double coding with a second expert coder), not all of the studies included in the review were of equal rigor, potentially influencing the quality of the results.

More specific to this study, there are additional limitations present that I have alluded to throughout the discussion section. The major one is the lack of data available for the examination of antecedents and group pride. While group pride is often regarded as one of the three main components of cohesion, an insufficient number of correlations were available to test several of my hypotheses and to conduct exploratory analyses examining the influence of antecedents on each cohesion dimension. The other major limitation involves the classification of both antecedents and cohesion as being task-focused and social-focused. Due to either the nature of some of the constructs themselves, or to the manners in which they were measured, a large number of variables could not be neatly classified, thus were coded as 'mixed,' which is not as theoretically meaningful. Additionally even those that were classified as one or the other, were often done so on the basis of the *closest* theoretical match, not necessarily a *perfect* match. These limitations therefore may have hindered the ability to detect the relationships that were hypothesized.

CHAPTER SIX: CONCLUSION

This study sought to answer the question, how do teams become cohesive? Meta-analytic findings suggest that they do so through a variety of mechanisms. Team behaviors, emergent states, team composition variables, leadership variables, team interventions, and situational variables all appear to have important, and in many cases, comparable relationships with cohesion. Further, relationships are largely consistent across both the individual- and the team-level of analysis, and across both social and task cohesion (and in some cases group pride, which was often not possible to examine). The results of this research begin to address critical gaps in both research and practice by expanding knowledge of the nomological network surrounding cohesion, and by providing insights about approaches through which cohesion's development and sustainment can be promoted.

APPENDIX: SUMMARY OF ARTICLE CODING

Table 13: Summary of article coding

Study	Level of Analysis	Sample Size	Antecedent	Antecedent Focus	Antecedent Type	Cohesion Type	Correlation
Behaviors & Processes							
Barnard, Baird, Greenwalt, & Karl, 1992	individual	48	action process	task-focused	behavioral	social	0.35
Barnard, Baird, Greenwalt, & Karl, 1992	individual	174	action process	task-focused	behavioral	social	0.18
Chansler, Swamidass, & Cammann, 2003	individual	169	action process	task-focused	behavioral	generic	0.56
Frenkel & Sanders, 2007	individual	1210	action process	task-focused	behavioral	task	0.18
Frenkel & Sanders, 2007	individual	1210	action process	task-focused	behavioral	task	0.18
Geller, Roberts, & Gilmore, 1996	individual	328	action process	task-focused	behavioral	social	0.29
Geller, Roberts, & Gilmore, 1996	individual	202	action process	task-focused	behavioral	social	0.41
George, 1999	individual	1154	action process	task-focused	behavioral	social	0.49
Hoegl & Gemuenden, 2001	team	145	action process	task-focused	behavioral	generic	0.49
Leon, Kafner, Hoffman, & Dupre, 1994	individual	11	action process	task-focused	behavioral	generic	0.72
Lewis, 2009	individual	160	action process	task-focused	behavioral	generic	0.07
Raes, Decuyper, Lismont, Van den Bossche, Kyndt, Demeyere, et al., 2013	team	28	action process	task-focused	behavioral	social	0.68
Stewart, Fulmer, Barrick, & Hollenbeck, 2005	team	45	action process	task-focused	behavioral	social	0.13
West, Patera, & Carsten, 2009	team	101	action process	task-focused	behavioral	generic	0.58
West, Patera, & Carsten, 2009	team	101	action process	task-focused	behavioral	generic	0.49
Ziegert, 2005	team	39	action process	task-focused	behavioral	social	0.58
Gard, 2000	individual	640	action process	task-focused	behavioral	generic	0.49
Tesluk, 1997	team	114	action process	task-focused	behavioral	task	0.87
Tesluk, 1997	team	114	action process	task-focused	behavioral	social	0.69
Tesluk, 1997	team	114	action process	task-focused	behavioral	task	0.59
Tesluk, 1997	team	114	action process	task-focused	behavioral	task	0.59
Tesluk, 1997	team	114	action process	task-focused	behavioral	task	0.53
Tesluk, 1997	team	114	action process	task-focused	behavioral	social	0.44
Tesluk, 1997	team	114	action process	task-focused	behavioral	social	0.36

Tesluk, 1997	team	114	action process	task-focused	behavioral	social	0.43
Walker, 2013	team	42	action process	task-focused	behavioral	generic	0.60
Anderson, 2005	individual	172	action process	task-focused	behavioral	generic	-0.01
Colarreli & Boos, 1992	team	86	action process	task-focused	behavioral	social	0.83
Dayan & Di Benedetto 2008	individual	117	action process	task-focused	behavioral	generic	0.43
Hoegl & Proserpio, 2004	team	145	action process	task-focused	behavioral	generic	0.49
Costa & Anderson, 2011	team	112	action process	task-focused	behavioral	generic	-0.26
Peterson, 2012	individual	263	action process	task-focused	behavioral	social	0.39
Harrison, Price, Gavin, & Florey, 2002	team	144	action process	task-focused	behavioral	social	0.29
Barsness, 1997	team	138	action process	task-focused	behavioral	generic	0.34
Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	communication/info-sharing	task-focused	behavioral	generic	0.89
Barrick, Stewart, Neubert, & Mount, 1998	team	51	communication/info-sharing	mixed	behavioral	social	0.85
Blair, 1997	team	16	communication/info-sharing	task-focused	behavioral	generic	0.56
Burt, Sepie, & McFadden, 2008	individual	80	communication/info-sharing	social-focused	behavioral	social	0.23
Burt, Sepie, & McFadden, 2008	individual	80	communication/info-sharing	task-focused	behavioral	social	0.17
Druskat & Wolff, 1999	individual	400	communication/info-sharing	mixed	behavioral	generic	0.40
Fonner, 2007	individual	120	communication/info-sharing	task-focused	behavioral	generic	0.30
Fonner, 2007	individual	120	communication/info-sharing	task-focused	behavioral	generic	0.59
Fonner, 2007	individual	105	communication/info-sharing	task-focused	behavioral	generic	0.22
Fonner, 2007	individual	105	communication/info-sharing	task-focused	behavioral	generic	0.52
Gard, Lindströ, & Dallner, 2002	individual	205	communication/info-sharing	mixed	behavioral	generic	0.49
Gard, Lindströ, & Dallner, 2002	individual	205	communication/info-sharing	mixed	behavioral	generic	0.22
Gard, Lindströ, & Dallner, 2002	individual	205	communication/info-sharing	mixed	behavioral	generic	0.22

George, 1999	individual	1154	communication/info-sharing	task-focused	behavioral	social	0.55
Hoegl & Gemuenden, 2001	team	145	communication/info-sharing	task-focused	behavioral	generic	0.69
Jarvenpaa, Shaw, & Staples, 2004	individual	51	communication/info-sharing	mixed	behavioral	generic	0.09
Jarvenpaa, Shaw, & Staples, 2004	individual	51	communication/info-sharing	mixed	behavioral	generic	0.23
Keller, 2001	team	93	communication/info-sharing	task-focused	behavioral	social	0.43
Lewis, 2009	individual	160	communication/info-sharing	task-focused	behavioral	generic	0.43
Riordan & Weatherly, 1999	individual	140	communication/info-sharing	mixed	behavioral	social	0.72
Riordan & Weatherly, 1999	individual	309	communication/info-sharing	mixed	behavioral	social	0.62
Steel, Shane, & Kennedy, 1990	individual	69	communication/info-sharing	mixed	behavioral	task	0.47
Taylor & MacDonald, 2002	individual	48	communication/info-sharing	mixed	behavioral	generic	0.32
Taylor & MacDonald, 2002	individual	48	communication/info-sharing	mixed	behavioral	social	0.29
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	communication/info-sharing	task-focused	behavioral	generic	0.62
Troth, Jordan, & Lawrence, 2012	individual	273	communication/info-sharing	mixed	behavioral	generic	0.33
Troth, Jordan, & Lawrence, 2012	individual	273	communication/info-sharing	mixed	behavioral	generic	0.25
Villado & Arthur, 2013	team	47	communication/info-sharing	task-focused	behavioral	social	0.78
Wong, 1999	individual	134	communication/info-sharing	mixed	behavioral	social	0.18
Abu Bakar & Sheer, 2013	individual	375	communication/info-sharing	task-focused	behavioral	generic	0.46
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	communication/info-sharing	task-focused	behavioral	social	0.60
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	communication/info-sharing	task-focused	behavioral	social	0.35

Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	communication/info-sharing	task-focused	behavioral	social	0.39
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	communication/info-sharing	task-focused	behavioral	social	0.66
He, 2010	individual	136	communication/info-sharing	task-focused	behavioral	task	0.72
Iverson & Roy, 1994	individual	246	communication/info-sharing	task-focused	behavioral	social	-0.05
Kickul, 2000	team	61	communication/info-sharing	mixed	behavioral	social	0.80
Lee, 1997	individual	48	communication/info-sharing	mixed	behavioral	generic	0.34
Metts, 1996	team	68	communication/info-sharing	mixed	behavioral	generic	0.93
Strang, Funke, Russell, Dukes, & Middendorf, 2014	team	20	communication/info-sharing	task-focused	behavioral	generic	0.76
Tung & Chang, 2011	team	79	communication/info-sharing	task-focused	behavioral	generic	0.50
Colarreli & Boos, 1992	team	86	communication/info-sharing	mixed	behavioral	social	0.83
Dayan & Di Benedetto 2008	individual	117	communication/info-sharing	task-focused	behavioral	generic	0.55
Dineen, 2005	individual	582	communication/info-sharing	task-focused	behavioral	social	0.71
Hoegl & Proserpio, 2004	team	145	communication/info-sharing	task-focused	behavioral	generic	0.69
Huang, 2009	individual	290	communication/info-sharing	task-focused	behavioral	generic	0.46
Magni, Proserpio, Hoegl, & Provera, 2009	individual	138	communication/info-sharing	task-focused	behavioral	social	0.40
Olukayode & Ehigie, 2005	team	54	communication/info-sharing	task-focused	behavioral	social	0.25
Sawng, Kim, & Han, 2006	individual	133	communication/info-sharing	task-focused	behavioral	social	0.52
Wang, Chen, Lin, & Hsu, 2010	team	109	communication/info-sharing	task-focused	behavioral	task	0.22
Woerkom & Sanders, 2010	individual	1354	communication/info-sharing	task-focused	behavioral	social	0.08

Woerkom & Sanders, 2010	individual	1354	communication/info-sharing	task-focused	behavioral	social	0.32
Wood, Michaelides, & Thomson, 2013	team	40	communication/info-sharing	task-focused	behavioral	social	0.73
Wood, Michaelides, & Thomson, 2013	team	40	communication/info-sharing	task-focused	behavioral	group pride	0.81
Han & Hovav, 2013	individual	177	communication/info-sharing	task-focused	behavioral	generic	0.62
Lee & Robbins, 1998	individual	44	communication/info-sharing	mixed	behavioral	generic	0.44
Xiang, Lu, & Gupta, 2013	team	118	communication/info-sharing	task-focused	behavioral	social	0.39
Ghobadi & D'Ambra, 2012	individual	115	communication/info-sharing	task-focused	behavioral	task	0.79
Ghobadi & D'Ambra, 2012	individual	115	communication/info-sharing	task-focused	behavioral	social	0.52
Tjosvold, Chen, Huang, & Xu, 2014	team	60	communication/info-sharing	task-focused	behavioral	social	0.66
Tjosvold, Chen, Huang, & Xu, 2014	team	60	communication/info-sharing	task-focused	behavioral	social	0.59
Foo, Sin, & Yiong, 2006	team	51	communication/info-sharing	mixed	behavioral	generic	0.46
Smith, Smith, Olian, & Sims, 1994	team	53	communication/info-sharing	task-focused	behavioral	generic	-0.54
Smith, Smith, Olian, & Sims, 1994	team	53	communication/info-sharing	task-focused	behavioral	generic	-0.26
Barrick, Stewart, Neubert, & Mount, 1998	team	51	conflict	mixed	behavioral	social	0.90
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	conflict	social-focused	behavioral	generic	0.32
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	conflict	task-focused	behavioral	generic	0.19
Chou & Yeh, 2007	individual	103	conflict	mixed	behavioral	group pride	0.30
Coyne, Craig, & Chong, 2004	team	34	conflict	mixed	behavioral	social	0.32
Elron, 1997	team	109	conflict	task-focused	behavioral	social	-0.56
Ensley, Pearson, & Sardeshmukh, 2007	team	200	conflict	social-focused	behavioral	group pride	0.41
Ensley, Pearson, & Sardeshmukh, 2007	team	200	conflict	task-focused	behavioral	group pride	-0.46

Fandt, Richardson, & Conner, 1990	individual	186	conflict	task-focused	behavioral	social	0.64
Gupta, Huang, & Niranjan, 2010	team	28	conflict	mixed	behavioral	generic	0.36
LeDoux, Gorman, & Woehr, 2012	team	56	conflict	task-focused	behavioral	generic	0.55
LeDoux, Gorman, & Woehr, 2012	team	56	conflict	social-focused	behavioral	generic	0.56
Leon, Kafner, Hoffman, & Dupre, 1994	individual	11	conflict	mixed	behavioral	generic	0.88
Molleman, 2005	team	99	conflict	mixed	behavioral	generic	0.76
Panzer, 2003	team	66	conflict	task-focused	behavioral	social	-0.14
Panzer, 2003	team	66	conflict	task-focused	behavioral	social	0.30
Panzer, 2003	team	66	conflict	task-focused	behavioral	social	0.20
Panzer, 2003	team	66	conflict	task-focused	behavioral	task	-0.05
Panzer, 2003	team	66	conflict	task-focused	behavioral	task	0.29
Panzer, 2003	team	66	conflict	task-focused	behavioral	task	0.24
Purvanova, 2009	team	112	conflict	task-focused	behavioral	task	0.30
Quigley, Tekleab, & Tesluk, 2007	team	53	conflict	social-focused	behavioral	generic	0.38
Quigley, Tekleab, & Tesluk, 2007	team	53	conflict	social-focused	behavioral	generic	0.52
Tekleab, Quigley, & Tesluk, 2009	team	53	conflict	social-focused	behavioral	generic	0.35
Tekleab, Quigley, & Tesluk, 2009	team	53	conflict	task-focused	behavioral	generic	0.31
Van Woerkom & Sanders, 2010	team	126	conflict	task-focused	behavioral	social	0.09
West, Patera, & Carsten, 2009	team	101	conflict	mixed	behavioral	generic	0.41
West, Patera, & Carsten, 2009	team	101	conflict	mixed	behavioral	generic	0.27
Woehr, Arciniega, & Poling, 2013	team	60	conflict	task-focused	behavioral	generic	0.53
Woehr, Arciniega, & Poling, 2013	team	60	conflict	social-focused	behavioral	generic	0.58
Wright & Drewery, 2006	individual	250	conflict	mixed	behavioral	social	0.28
Yousofpourfard, 2012	team	41	conflict	social-focused	behavioral	social	0.59
Yousofpourfard, 2012	team	41	conflict	task-focused	behavioral	social	0.52
Bakker, Boroş, Kenis, & Oerlemans, 2013	team	89	conflict	mixed	behavioral	generic	0.32
Graebner, 2012	team	81	conflict	task-focused	behavioral	social	0.42
Graebner, 2012	team	81	conflict	social-focused	behavioral	social	0.59
He, 2010	individual	136	conflict	task-focused	behavioral	task	-0.22
Jehn & Chatman, 2000	individual	326	conflict	social-focused	behavioral	social	0.12

Jehn & Chatman, 2000	individual	326	conflict	task-focused	behavioral	social	0.02
Jehn & Chatman, 2000	individual	326	conflict	task-focused	behavioral	social	0.18
Jehn & Chatman, 2000	individual	230	conflict	social-focused	behavioral	social	0.10
Jehn & Chatman, 2000	individual	230	conflict	task-focused	behavioral	social	-0.04
Jehn & Chatman, 2000	individual	230	conflict	task-focused	behavioral	social	0.12
Jordan, Lawrence, & Troth, 2006	individual	231	conflict	social-focused	behavioral	generic	0.34
Jordan, Lawrence, & Troth, 2006	individual	231	conflict	task-focused	behavioral	generic	0.14
Jordan, Lawrence, & Troth, 2006	individual	231	conflict	task-focused	behavioral	generic	0.27
Kickul, 2000	team	61	conflict	mixed	behavioral	social	0.73
Nielsen, 2013	individual	594	conflict	social-focused	behavioral	social	0.13
Owens, 2012	individual	111	conflict	mixed	behavioral	generic	0.42
Patrick, 1997	team	57	conflict	social-focused	behavioral	task	0.14
Patrick, 1997	team	57	conflict	task-focused	behavioral	task	0.25
Patrick, 1997	team	57	conflict	social-focused	behavioral	social	0.58
Patrick, 1997	team	57	conflict	task-focused	behavioral	social	0.56
Watson, Cooper, Torres, & Boyd, 2008	team	144	conflict	social-focused	behavioral	task	0.48
Watson, Cooper, Torres, & Boyd, 2008	team	144	conflict	task-focused	behavioral	task	0.31
Anderson, 2005	individual	172	conflict	task-focused	behavioral	generic	0.45
Ensley, Pearson, & Amason, 2002	team	70	conflict	task-focused	behavioral	social	0.23
Ensley, Pearson, & Amason, 2002	team	70	conflict	social-focused	behavioral	social	0.42
Ensley, Pearson, & Amason, 2002	team	70	conflict	task-focused	behavioral	group pride	0.12
Ensley, Pearson, & Amason, 2002	team	70	conflict	social-focused	behavioral	group pride	0.24
Woerkom & Sanders, 2010	individual	1354	conflict	task-focused	behavioral	social	0.09
Workman, 2007	individual	848	conflict	mixed	behavioral	task	0.17
Arndt, Karande, & Harkins, 2012	individual	118	conflict	mixed	behavioral	social	0.27
Arndt, Karande, & Harkins, 2012	individual	89	conflict	mixed	behavioral	social	0.23
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	conflict	task-focused	behavioral	task	-0.61
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	conflict	social-focused	behavioral	task	0.55

Polzer, Milton, & Swann, 2002	team	83	conflict	social-focused	behavioral	generic	0.79
Polzer, Milton, & Swann, 2002	team	83	conflict	task-focused	behavioral	generic	0.52
Barsness, 1997	team	138	conflict	mixed	behavioral	generic	0.46
Cogliser & Schriesheim, 2000	team	65	cooperation	mixed	behavioral	task	0.54
Sanders & Schyns, 2006	individual	193	cooperation	task-focused	behavioral	social	0.29
West, Patera, & Carsten, 2009	team	101	cooperation	task-focused	behavioral	generic	0.68
West, Patera, & Carsten, 2009	team	101	cooperation	task-focused	behavioral	generic	0.60
Ziegert, 2005	team	39	cooperation	task-focused	behavioral	social	0.59
Watson, Cooper, Torres, & Boyd, 2008	team	144	cooperation	task-focused	behavioral	task	0.77
Wang, Chen, Lin, & Hsu, 2010	team	109	cooperation	task-focused	behavioral	task	0.48
Costa & Anderson, 2011	team	112	cooperation	task-focused	behavioral	generic	0.39
Ghobadi & D'Ambra, 2012	individual	115	cooperation	task-focused	behavioral	task	0.20
Ghobadi & D'Ambra, 2012	individual	115	cooperation	task-focused	behavioral	social	0.27
Ghobadi & D'Ambra, 2012	individual	115	cooperation	task-focused	behavioral	task	0.24
Ghobadi & D'Ambra, 2012	individual	115	cooperation	task-focused	behavioral	social	0.24
Barsness, 1997	team	138	cooperation	task-focused	behavioral	generic	0.29
Carless & de Paola, 2000	individual	120	interpersonal process	social-focused	behavioral	task	0.68
Carless & de Paola, 2000	individual	120	interpersonal process	social-focused	behavioral	social	0.39
Carless & de Paola, 2000	individual	120	interpersonal process	social-focused	behavioral	group pride	0.12
Chou & Yeh, 2007	individual	103	interpersonal process	mixed	behavioral	group pride	0.26
Chou & Yeh, 2007	individual	103	interpersonal process	mixed	behavioral	group pride	0.24
Chou & Yeh, 2007	individual	103	interpersonal process	mixed	behavioral	group pride	0.05
Chou & Yeh, 2007	individual	103	interpersonal process	mixed	behavioral	group pride	0.12
Chou & Yeh, 2007	individual	103	interpersonal process	mixed	behavioral	group pride	0.17
Cogliser & Schriesheim, 2000	team	65	interpersonal process	social-focused	behavioral	task	0.35
Dekoekkoek, 2000	individual	194	interpersonal process	social-focused	behavioral	social	0.51
Hoegl & Gemuenden, 2001	team	145	interpersonal process	task-focused	behavioral	generic	0.75
Landen & Wang, 2010	individual	173	interpersonal process	social-focused	behavioral	social	0.32
Landen & Wang, 2010	individual	173	interpersonal process	social-focused	behavioral	social	0.37
Mesmer-Magnus & Glew, 2012	individual	194	interpersonal process	social-focused	behavioral	generic	0.42

Mesmer-Magnus & Glew, 2012	individual	194	interpersonal process	social-focused	behavioral	generic	0.19
Roberts & Geller, 1995	individual	25	interpersonal process	social-focused	behavioral	social	0.48
Stewart, Fulmer, Barrick, & Hollenbeck, 2005	team	45	interpersonal process	social-focused	behavioral	social	0.65
Tekleab, Quigley, & Tesluk, 2009	team	53	interpersonal process	mixed	behavioral	generic	0.55
Westman, Bakker, Roziner, & Sonnentag, 2011	team	100	interpersonal process	social-focused	behavioral	task	0.67
Wright & Drewery, 2006	individual	250	interpersonal process	social-focused	behavioral	social	0.22
Ko, 2011	individual	756	interpersonal process	social-focused	behavioral	generic	-0.15
Ko, 2011	individual	995	interpersonal process	social-focused	behavioral	generic	-0.20
Owens, 2012	individual	111	interpersonal process	social-focused	behavioral	generic	0.29
Owens, 2012	individual	111	interpersonal process	social-focused	behavioral	generic	0.49
Patrick, 1997	team	57	interpersonal process	mixed	behavioral	task	-0.12
Patrick, 1997	team	57	interpersonal process	mixed	behavioral	task	0.36
Patrick, 1997	team	57	interpersonal process	mixed	behavioral	social	0.18
Patrick, 1997	team	57	interpersonal process	mixed	behavioral	social	0.27
Craig & Kelly, 1999	team	61	interpersonal process	social-focused	behavioral	social	0.26
Anderson, Hesford, & Young, 2002	team	18	interpersonal process	mixed	behavioral	social	0.86
Coopman, 2001	individual	52	interpersonal process	mixed	behavioral	social	0.39
Dayan & Di Benedetto 2008	individual	117	interpersonal process	task-focused	behavioral	generic	0.73
Hoegl & Proserpio, 2004	team	145	interpersonal process	task-focused	behavioral	generic	0.75
Wood, Michaelides, & Thomson, 2013	team	40	interpersonal process	social-focused	behavioral	social	0.87
Wood, Michaelides, & Thomson, 2013	team	40	interpersonal process	social-focused	behavioral	group pride	0.82
Yoo & Alavi, 2001	team	21	interpersonal process	social-focused	behavioral	social	0.66
Zaccaro & Lowe, 1988	team	54	interpersonal process	social-focused	behavioral	social	0.67
Peterson, 2012	individual	263	interpersonal process	social-focused	behavioral	social	0.77
Bennett & Lehman, 1998	individual	799	interpersonal process	social-focused	behavioral	task	0.29
Bennett & Lehman, 1998	individual	978	interpersonal process	social-focused	behavioral	task	0.26
Brahm & Kunze, 2012	team	50	transition process	task-focused	behavioral	task	0.81
Druskat & Wolff, 1999	individual	400	transition process	task-focused	behavioral	generic	0.28

Fandt, Richardson, & Conner, 1990	individual	186	transition process	task-focused	behavioral	social	0.45
Joo, Song., Lim, & Yoon, 2012	individual	228	transition process	task-focused	behavioral	generic	0.50
Lehmann-Willenbrock & Kauffeld, 2010	individual	247	transition process	task-focused	behavioral	generic	-0.17
Stewart, Courtright, & Barrick, 2012	team	45	transition process	task-focused	behavioral	generic	0.35
Wei & Wu, 2013	team	118	transition process	task-focused	behavioral	generic	0.38
Wong, 2003	team	74	transition process	task-focused	behavioral	social	0.50
Wong, 2003	team	74	transition process	task-focused	behavioral	social	0.47
Wong, 2003	team	74	transition process	task-focused	behavioral	social	0.33
Hu, 2013	team	67	transition process	task-focused	behavioral	generic	0.77
Kahai, Huang, & Jestice, 2012	team	34	transition process	task-focused	behavioral	generic	0.58
Anderson, 2005	individual	172	transition process	task-focused	behavioral	generic	-0.11
Williams & Castro, 2010	team	47	transition process	task-focused	behavioral	social	0.25
Carlson, Carlson, Hunter, Vaughn, & George, 2013	individual	365	transition process	task-focused	behavioral	social	0.47
Barrick, Stewart, Neubert, & Mount, 1998	team	51	workload sharing	task-focused	behavioral	social	0.74
Carless & de Paola, 2000	individual	120	workload sharing	task-focused	behavioral	task	0.58
Carless & de Paola, 2000	individual	120	workload sharing	task-focused	behavioral	social	0.46
Carless & de Paola, 2000	individual	120	workload sharing	task-focused	behavioral	group pride	0.23
Carless & de Paola, 2000	individual	120	workload sharing	task-focused	behavioral	task	0.48
Carless & de Paola, 2000	individual	120	workload sharing	task-focused	behavioral	social	0.29
Carless & de Paola, 2000	individual	120	workload sharing	task-focused	behavioral	group pride	-0.03
Chansler, Swamidass, & Cammann, 2003	individual	169	workload sharing	task-focused	behavioral	generic	0.44
Druskat & Wolff, 1999	individual	400	workload sharing	task-focused	behavioral	generic	0.50
Forrest, 1998	team	119	workload sharing	mixed	behavioral	social	0.50
Forrester & Tashchian, 2004	individual	78	workload sharing	task-focused	behavioral	task	0.41
Forrester & Tashchian, 2004	individual	78	workload sharing	task-focused	behavioral	social	0.29
George, 1999	individual	1154	workload sharing	task-focused	behavioral	social	0.67
Hasan & Ali, 2007	team	29	workload sharing	task-focused	behavioral	generic	0.63
Hoegl & Gemuenden, 2001	team	145	workload sharing	task-focused	behavioral	generic	0.74
Hoegl & Gemuenden, 2001	team	145	workload sharing	task-focused	behavioral	generic	0.78

Lewis, 2009	individual	160	workload sharing	task-focused	behavioral	generic	0.16
Mulvey & Klein, 1998	team	59	workload sharing	task-focused	behavioral	social	0.70
Phillips, 1996	team	91	workload sharing	task-focused	behavioral	generic	0.81
Steel, Shane, & Kennedy, 1990	individual	69	workload sharing	task-focused	behavioral	task	0.56
Wong, 2003	team	74	workload sharing	task-focused	behavioral	social	0.30
Wright & Drewery, 2006	individual	250	workload sharing	task-focused	behavioral	social	0.14
Yousofpourfard, 2012	team	41	workload sharing	task-focused	behavioral	social	0.71
Zahrly & Tosi, 1989	individual	64	workload sharing	task-focused	behavioral	social	0.16
Bodiya, 2011	individual	165	workload sharing	task-focused	behavioral	generic	0.61
Graebner, 2012	team	81	workload sharing	task-focused	behavioral	social	0.54
He, 2010	individual	136	workload sharing	task-focused	behavioral	task	0.49
Jordan, Lawrence, & Troth, 2006	individual	231	workload sharing	task-focused	behavioral	generic	0.54
Kane, 1996	team	80	workload sharing	task-focused	behavioral	task	0.43
Klein, 1996	individual	1676	workload sharing	task-focused	behavioral	generic	0.21
Lea, Spears, & de Groot, 2001	individual	50	workload sharing	task-focused	behavioral	generic	-0.03
Owens, 2012	individual	111	workload sharing	task-focused	behavioral	generic	0.39
Ruiz Jiménez, Vallejo Martos, & Martínez Jiménez, 2013	individual	295	workload sharing	task-focused	behavioral	social	0.50
Walker, 2013	team	42	workload sharing	task-focused	behavioral	generic	0.71
Wolfe & Box, 1988	team	36	workload sharing	task-focused	behavioral	social	0.35
Coopman, 2001	individual	52	workload sharing	task-focused	behavioral	social	0.52
Coopman, 2001	individual	52	workload sharing	task-focused	behavioral	social	0.33
Dayan & Di Benedetto 2008	individual	117	workload sharing	task-focused	behavioral	generic	0.73
Dayan & Di Benedetto 2008	individual	117	workload sharing	task-focused	behavioral	generic	0.66
Dineen, 2005	individual	582	workload sharing	task-focused	behavioral	social	0.22
Dineen, 2005	individual	582	workload sharing	task-focused	behavioral	social	0.28
Furumo, 2009	individual	176	workload sharing	task-focused	behavioral	generic	0.27
Hoegl & Proserpio, 2004	team	145	workload sharing	task-focused	behavioral	generic	0.74
Hoegl & Proserpio, 2004	team	145	workload sharing	task-focused	behavioral	generic	0.78
Olukayode & Ehigie, 2005	team	54	workload sharing	task-focused	behavioral	social	0.24

Seers, Petty, & Cashman, 1995	individual	103	workload sharing	task-focused	behavioral	social	0.02
Seers, Petty, & Cashman, 1995	individual	103	workload sharing	task-focused	behavioral	social	0.38
Vallejo-Martos, 2011	individual	295	workload sharing	task-focused	behavioral	generic	0.50
Wang, Ying, Jiang, & Klein, 2006	individual	128	workload sharing	task-focused	behavioral	task	0.53
Wood, Michaelides, & Thomson, 2013	team	40	workload sharing	task-focused	behavioral	social	0.68
Wood, Michaelides, & Thomson, 2013	team	40	workload sharing	task-focused	behavioral	group pride	0.73
Wood, Michaelides, & Thomson, 2013	team	40	workload sharing	task-focused	behavioral	social	0.57
Wood, Michaelides, & Thomson, 2013	team	40	workload sharing	task-focused	behavioral	group pride	0.74
Wood, Michaelides, & Thomson, 2013	team	40	workload sharing	task-focused	behavioral	social	0.76
Wood, Michaelides, & Thomson, 2013	team	40	workload sharing	task-focused	behavioral	group pride	0.69
Yoo & Alavi, 2001	team	21	workload sharing	task-focused	behavioral	social	0.55
Tjosvold, Chen, Huang, & Xu, 2014	team	60	workload sharing	task-focused	behavioral	social	0.54
Tjosvold, Chen, Huang, & Xu, 2014	team	60	workload sharing	task-focused	behavioral	social	0.64
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	workload sharing	task-focused	behavioral	social	0.60
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	workload sharing	task-focused	behavioral	social	0.42
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	workload sharing	task-focused	behavioral	social	0.66
Attitudes & Emergent States							
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	task	0.58
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	task	0.59
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	task	0.53
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	task	0.33
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	task	0.36
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	task	0.41
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	social	0.30
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	social	0.30
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	social	0.43
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	social	0.33
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	social	0.32
Bailey, 2007	team	28	climate for taskwork	task-focused	affective	social	0.50
Chang, Yeh, Chen, & Hsiao, 2011	individual	265	climate for taskwork	task-focused	affective	task	0.55

Druskat & Wolff, 1999	individual	400	climate for taskwork	task-focused	affective	generic	0.48
Eisenberg, 2002	individual	340	climate for taskwork	task-focused	affective	generic	0.12
Eisenberg, 2002	individual	340	climate for taskwork	task-focused	affective	generic	0.17
Gard, Lindströ, & Dallner, 2002	individual	205	climate for taskwork	task-focused	affective	generic	0.17
Gard, Lindströ, & Dallner, 2002	individual	205	climate for taskwork	task-focused	affective	generic	0.60
Gard, Lindströ, & Dallner, 2002	individual	205	climate for taskwork	task-focused	affective	generic	0.25
Gard, Lindströ, & Dallner, 2002	individual	205	climate for taskwork	task-focused	affective	generic	0.60
Gard, Lindströ, & Dallner, 2002	individual	205	climate for taskwork	task-focused	affective	generic	0.55
Gard, Lindströ, & Dallner, 2002	individual	205	climate for taskwork	task-focused	affective	generic	0.50
Joo, Song., Lim, & Yoon, 2012	individual	228	climate for taskwork	task-focused	affective	generic	0.41
Langfred, 1998b	team	61	climate for taskwork	task-focused	affective	generic	0.45
Langfred, 1998a	team	67	climate for taskwork	task-focused	affective	generic	0.20
Langfred, 1998a	team	61	climate for taskwork	task-focused	affective	generic	0.47
Langfred, 1998a	team	25	climate for taskwork	task-focused	affective	generic	0.08
Lee, Tinsley, & Bobko, 2002	team	27	climate for taskwork	task-focused	affective	generic	0.64
Lee, Tinsley, & Bobko, 2002	team	27	climate for taskwork	task-focused	affective	generic	0.87
Lowe, 1995	team	100	climate for taskwork	task-focused	affective	generic	0.56
Mael & Alderks, 1993	individual	1012	climate for taskwork	task-focused	affective	generic	0.47
Mael & Alderks, 1993	individual	1012	climate for taskwork	task-focused	affective	generic	0.47
Mannheim & Halamish, 2008	team	66	climate for taskwork	task-focused	affective	generic	0.67
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	climate for taskwork	task-focused	affective	generic	0.70
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	climate for taskwork	task-focused	affective	generic	0.30
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	climate for taskwork	task-focused	affective	generic	0.13
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	climate for taskwork	task-focused	affective	generic	0.41
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.04
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.19

Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	-0.04
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.38
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.35
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.23
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.04
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.17
Neal, 1997	team	25	climate for taskwork	task-focused	affective	generic	0.12
O'Reilly & Caldwell, 1985	individual	79	climate for taskwork	task-focused	affective	generic	0.17
Podsakoff, MacKenzie, & Ahearne, 1997	team	40	climate for taskwork	task-focused	affective	generic	0.37
Podsakoff & Todor, 1985	individual	827	climate for taskwork	task-focused	affective	social	0.66
Putti, 1985	individual	80	climate for taskwork	task-focused	affective	generic	0.41
Wallen, Mitchell, Melnyk, Fineout-Overholt, Miller-Davis, Yates, & Hastings, 2010	individual	143	climate for taskwork	task-focused	affective	task	0.36
Wekselberg, Goggin, & Collings, 1997	team	20	climate for taskwork	task-focused	affective	generic	0.04
Wekselberg, Goggin, & Collings, 1997	team	9	climate for taskwork	task-focused	affective	generic	0.49
Wolff, 1998	team	69	climate for taskwork	task-focused	affective	social	0.63
Wolff, 1998	team	69	climate for taskwork	task-focused	affective	social	0.55
Wolff, 1998	team	69	climate for taskwork	task-focused	affective	social	0.65
Wolff, 1998	team	69	climate for taskwork	task-focused	affective	social	0.48
Wolff, 1998	team	69	climate for taskwork	task-focused	affective	social	0.41
Wolff, 1998	team	69	climate for taskwork	task-focused	affective	social	0.64
Wong, 1999	individual	134	climate for taskwork	task-focused	affective	social	0.31
Wong, 1999	individual	134	climate for taskwork	task-focused	affective	social	0.23
Ziegert, 2005	team	39	climate for taskwork	task-focused	affective	social	0.47
Gal, 1986	individual	1200	climate for taskwork	task-focused	affective	generic	0.41
Gard, 2000	individual	640	climate for taskwork	task-focused	affective	generic	0.60
Halfhill, 2001	team	40	climate for taskwork	task-focused	affective	social	0.40
Harris, 1989	team	39	climate for taskwork	task-focused	affective	generic	0.19
Jaussi & Dionne, 2003	team	74	climate for taskwork	task-focused	affective	generic	0.18
Owens, 2012	individual	111	climate for taskwork	task-focused	affective	generic	0.29

McComb, Green, & Compton, 2007	team	60	climate for taskwork	task-focused	affective	social	0.32
Wang, Ying, Jiang, & Klein, 2006	individual	128	climate for taskwork	task-focused	affective	task	0.47
Wang, Chen, Lin, & Hsu, 2010	team	109	climate for taskwork	task-focused	affective	task	0.49
Mueller, Boyer, Price, & Iverson, 1994	individual	305	climate for taskwork	task-focused	affective	social	-0.09
Putz, Schilling, Kluge, & Stangenberg, 2013	team	47	climate for taskwork	task-focused	affective	generic	0.79
Tjosvold, Chen, Huang, & Xu, 2014	team	60	climate for taskwork	task-focused	affective	social	0.43
Tjosvold, Chen, Huang, & Xu, 2014	team	60	climate for taskwork	task-focused	affective	social	0.71
Bailey, 2007	team	28	climate for teamwork	task-focused	affective	task	0.48
Bailey, 2007	team	28	climate for teamwork	task-focused	affective	task	0.24
Bailey, 2007	team	28	climate for teamwork	task-focused	affective	social	0.29
Bailey, 2007	team	28	climate for teamwork	task-focused	affective	social	0.28
Carless & de Paola, 2000	individual	120	climate for teamwork	task-focused	affective	task	0.62
Carless & de Paola, 2000	individual	120	climate for teamwork	task-focused	affective	social	0.49
Carless & de Paola, 2000	individual	120	climate for teamwork	task-focused	affective	group pride	0.21
Fonner, 2007	individual	120	climate for teamwork	social-focused	affective	generic	0.55
Fonner, 2007	individual	120	climate for teamwork	task-focused	affective	generic	0.56
Fonner, 2007	individual	120	climate for teamwork	social-focused	affective	generic	0.45
Fonner, 2007	individual	105	climate for teamwork	social-focused	affective	generic	0.49
Fonner, 2007	individual	105	climate for teamwork	task-focused	affective	generic	0.72
Fonner, 2007	individual	105	climate for teamwork	social-focused	affective	generic	0.49
Lewis, 2009	individual	160	climate for teamwork	mixed	affective	generic	0.65
Prien, 2001	individual	497	climate for teamwork	task-focused	affective	social	0.21
Prien, 2001	individual	497	climate for teamwork	task-focused	affective	social	0.30
Prien, 2001	individual	497	climate for teamwork	task-focused	affective	task	0.57
Prien, 2001	individual	497	climate for teamwork	task-focused	affective	task	0.03
Abe, 2007	individual	884	climate for teamwork	task-focused	affective	social	0.25
Chang, Jia, Takeuchi, & Cai, 2014	individual	1059	climate for teamwork	task-focused	affective	social	0.14
Hu, 2013	team	67	climate for teamwork	task-focused	affective	generic	0.37
Rosenberg, 1995	individual	100	climate for teamwork	task-focused	affective	social	0.32
Rosenberg, 1995	team	70	climate for teamwork	task-focused	affective	social	0.64

Ruiz Jiménez, Vallejo Martos, & Martínez Jiménez, 2013	individual	295	climate for teamwork	mixed	affective	social	0.63
Vallejo-Martos, 2011	individual	295	climate for teamwork	mixed	affective	generic	0.63
Daspit, Tillman, Boyd, & Mckee, 2013	individual	142	climate for teamwork	mixed	affective	social	0.69
Chen, Lu, Tjosvold, & Lin, 2008	individual	90	climate for teamwork	mixed	affective	social	0.36
Peterson, 2012	individual	263	climate for teamwork	task-focused	affective	social	0.50
Yi-Feng Chen, Lu, Tjosvold, & Lin, 2008	individual	90	climate for teamwork	task-focused	affective	social	0.36
Lin & Shih, 2008	team	201	climate for teamwork	task-focused	affective	social	0.42
Blair, 1997	team	16	collective efficacy	task-focused	affective	generic	0.27
Carless & de Paola, 2000	individual	120	collective efficacy	task-focused	affective	task	0.72
Carless & de Paola, 2000	individual	120	collective efficacy	task-focused	affective	social	0.46
Carless & de Paola, 2000	individual	120	collective efficacy	task-focused	affective	group pride	0.22
Ensley, Pearson, & Sardeshmukh, 2007	team	200	collective efficacy	task-focused	affective	group pride	0.34
Forrest, 1998	team	119	collective efficacy	mixed	affective	social	0.13
Forrester & Tashchian, 2004	individual	78	collective efficacy	task-focused	affective	task	0.64
Forrester & Tashchian, 2004	individual	78	collective efficacy	task-focused	affective	social	0.04
González, Burke, Santuzzi, & Bradley, 2003	team	71	collective efficacy	task-focused	affective	social	0.60
González, Burke, Santuzzi, & Bradley, 2003	team	71	collective efficacy	task-focused	affective	task	0.75
Bass, Jung, Avolio, & Berson, 2003	team	72	collective efficacy	task-focused	affective	task	0.72
Hasan & Ali, 2007	team	29	collective efficacy	task-focused	affective	generic	0.59
Hirschfeld & Bernerth, 2008	team	110	collective efficacy	task-focused	affective	social	0.47
Hirschfeld & Bernerth, 2008	team	110	collective efficacy	task-focused	affective	social	0.46
Hirschfeld, Jordan, Feild, Giles, & Armenakis, 2005	team	92	collective efficacy	task-focused	affective	social	0.26
Hoyt & Blascovich, 2003	team	72	collective efficacy	task-focused	affective	social	0.43
Jung & Sosik, 2002	team	47	collective efficacy	task-focused	affective	generic	0.57
Kayes, 2006	team	62	collective efficacy	task-focused	affective	social	0.04
LeDoux, Gorman, & Woehr, 2012	team	56	collective efficacy	task-focused	affective	generic	0.61
Lee & Farh, 2004	team	45	collective efficacy	task-focused	affective	generic	0.21
Lee, Tinsley, & Bobko, 2002	team	27	collective efficacy	task-focused	affective	generic	-0.02

Lee, Tinsley, & Bobko, 2002	team	27	collective efficacy	task-focused	affective	generic	0.12
Lee, Tinsley, & Bobko, 2002	team	27	collective efficacy	task-focused	affective	generic	-0.01
Lee, Tinsley, & Bobko, 2002	team	27	collective efficacy	task-focused	affective	generic	0.91
Lee, Tinsley, & Bobko, 2002	team	27	collective efficacy	task-focused	affective	generic	0.85
Lent, Schmidt, & Schmidt, 2006	team	56	collective efficacy	task-focused	affective	social	0.67
Lewis, 2009	individual	160	collective efficacy	task-focused	affective	generic	0.25
Lin & Peng, 2010	team	62	collective efficacy	task-focused	affective	social	0.47
Lowe, 1995	team	100	collective efficacy	task-focused	affective	generic	0.06
Lowe, 1995	team	100	collective efficacy	task-focused	affective	generic	0.10
Lowe, 1995	team	100	collective efficacy	task-focused	affective	generic	0.07
Lowe, 1995	team	100	collective efficacy	task-focused	affective	generic	-0.05
Mulvey & Klein, 1998	team	59	collective efficacy	task-focused	affective	social	0.40
Rapp, 2010	individual	113	collective efficacy	task-focused	affective	social	0.80
Riolli-Saltzman, 1999	individual	150	collective efficacy	task-focused	affective	social	0.69
Villado & Arthur, 2013	team	47	collective efficacy	task-focused	affective	social	0.34
Villado & Arthur, 2013	team	47	collective efficacy	task-focused	affective	social	0.55
Villado & Arthur, 2013	team	47	collective efficacy	task-focused	affective	social	0.58
West, Patera, & Carsten, 2009	team	101	collective efficacy	task-focused	affective	generic	0.41
West, Patera, & Carsten, 2009	team	101	collective efficacy	task-focused	affective	generic	0.33
West, Patera, & Carsten, 2009	team	101	collective efficacy	task-focused	affective	generic	0.43
West, Patera, & Carsten, 2009	team	101	collective efficacy	task-focused	affective	generic	0.40
West, Patera, & Carsten, 2009	team	101	collective efficacy	task-focused	affective	generic	0.54
West, Patera, & Carsten, 2009	team	101	collective efficacy	task-focused	affective	generic	0.39
Whalen, 2012	team	55	collective efficacy	task-focused	affective	generic	0.73
Whitney, 1994	team	36	collective efficacy	task-focused	affective	social	-0.12
Whitney, 1994	team	36	collective efficacy	task-focused	affective	social	-0.06
Woehr, Arciniega, & Poling, 2013	team	60	collective efficacy	task-focused	affective	generic	0.62
Ziegert, 2005	team	39	collective efficacy	task-focused	affective	social	0.59
Curtis, 2005	team	23	collective efficacy	task-focused	affective	social	-0.41
Curtis, 2005	team	23	collective efficacy	task-focused	affective	task	-0.08

Curtis, 2005	team	21	collective efficacy	task-focused	affective	social	0.69
Curtis, 2005	team	21	collective efficacy	task-focused	affective	task	-0.17
Hu, 2013	team	67	collective efficacy	task-focused	affective	generic	0.59
Jordan, Feild, & Armenakis, 2002	team	50	collective efficacy	task-focused	affective	social	0.71
Kahai, Huang, & Jestice, 2012	team	34	collective efficacy	task-focused	affective	generic	0.84
Kane, 1996	team	80	collective efficacy	task-focused	affective	task	0.49
Kane, 1996	team	80	collective efficacy	task-focused	affective	task	0.64
Metts, 1996	team	68	collective efficacy	task-focused	affective	generic	0.79
Patrick, 1997	team	57	collective efficacy	task-focused	affective	task	0.50
Patrick, 1997	team	57	collective efficacy	task-focused	affective	social	0.44
Rosenberg, 1995	individual	100	collective efficacy	task-focused	affective	social	0.59
Rosenberg, 1995	team	70	collective efficacy	task-focused	affective	social	0.68
Strang, Funke, Russell, Dukes, & Middendorf, 2014	team	20	collective efficacy	task-focused	affective	generic	0.57
Tesluk, 1997	team	114	collective efficacy	task-focused	affective	task	0.82
Tesluk, 1997	team	114	collective efficacy	task-focused	affective	social	0.56
Walker, 2013	team	42	collective efficacy	task-focused	affective	generic	0.68
Lewis, 2004	team	37	collective efficacy	task-focused	affective	generic	0.73
Shinh & Choi, 2010	team	43	collective efficacy	task-focused	affective	social	0.59
Wood, Michaelides, & Thomson, 2013	team	40	collective efficacy	task-focused	affective	social	0.78
Wood, Michaelides, & Thomson, 2013	team	40	collective efficacy	task-focused	affective	group pride	0.82
Ensley & Hmieleski, 2005	team	256	collective efficacy	task-focused	affective	generic	0.37
Peterson, 2012	individual	263	collective efficacy	task-focused	affective	social	0.46
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	collective efficacy	task-focused	affective	task	0.25
Burnett, 2005	individual	137	friendship/liking	task-focused	affective	task	0.69
Burnett, 2005	individual	137	friendship/liking	social-focused	affective	task	0.67
Burnett, 2005	individual	137	friendship/liking	task-focused	affective	social	0.53
Burnett, 2005	individual	137	friendship/liking	social-focused	affective	social	0.56
Burt, Sepie, & McFadden, 2008	individual	80	friendship/liking	social-focused	cognitive	social	0.31

Burt, Sepie, & McFadden, 2008	individual	80	friendship/liking	social-focused	affective	social	0.34
Cogliser & Schriesheim, 2000	team	65	friendship/liking	social-focused	affective	task	0.48
Gilbert & Tang, 1998	individual	39	friendship/liking	social-focused	affective	social	0.09
Kruger, Botman, & Goodenow, 1991	individual	78	friendship/liking	social-focused	affective	generic	0.13
Kruger, Botman, & Goodenow, 1991	individual	78	friendship/liking	social-focused	affective	generic	0.08
Kruger, Botman, & Goodenow, 1991	individual	78	friendship/liking	social-focused	affective	generic	0.06
Lucius & Kuhnert, 1996	team	29	friendship/liking	social-focused	affective	social	0.17
Taylor & MacDonald, 2002	individual	48	friendship/liking	social-focused	cognitive	generic	0.43
Halfhill, 2001	team	40	friendship/liking	social-focused	affective	social	0.57
Hogg, Cooper-Shaw, & Holzworth, 1993	individual	112	friendship/liking	social-focused	affective	task	0.35
Hogg, Cooper-Shaw, & Holzworth, 1993	individual	112	friendship/liking	social-focused	affective	task	0.18
Young, 2001	team	80	friendship/liking	mixed	affective	generic	0.58
Tjosvold, Chen, Huang, & Xu, 2014	team	60	friendship/liking	social-focused	affective	social	0.37
Tjosvold, Chen, Huang, & Xu, 2014	team	60	friendship/liking	social-focused	affective	social	0.54
Polzer, Milton, & Swann, 2002	team	83	friendship/liking	social-focused	affective	generic	0.19
Fonner, 2007	individual	120	identity	social-focused	affective	generic	0.40
Fonner, 2007	individual	105	identity	social-focused	affective	generic	0.45
Forrest, 1998	team	119	identity	mixed	affective	social	0.14
Lehmann-Willenbrock & Kauffeld, 2010	individual	247	identity	mixed	affective	generic	0.21
Mael & Alderks, 1993	individual	1012	identity	social-focused	affective	generic	0.43
Mael & Alderks, 1993	individual	1012	identity	mixed	affective	generic	0.15
Michaels & Dixon, 1994	individual	215	identity	mixed	affective	generic	0.31
Michaels & Dixon, 1994	individual	1005	identity	mixed	affective	generic	0.33
Mulvey & Klein, 1998	team	59	identity	task-focused	affective	social	0.55
Prien, 2001	individual	497	identity	mixed	affective	social	0.32
Prien, 2001	individual	497	identity	mixed	affective	social	0.16
Prien, 2001	individual	497	identity	mixed	affective	social	0.44
Prien, 2001	individual	497	identity	mixed	affective	social	0.26
Prien, 2001	individual	497	identity	mixed	affective	task	0.39
Prien, 2001	individual	497	identity	mixed	affective	task	0.26

Prien, 2001	individual	497	identity	mixed	affective	task	0.37
Prien, 2001	individual	497	identity	mixed	affective	task	0.09
Putti, 1985	individual	80	identity	social-focused	affective	generic	0.49
Rapp, 2010	individual	113	identity	social-focused	affective	social	0.53
Riolli-Saltzman, 1999	individual	150	identity	social-focused	affective	social	0.40
Riordan & Weatherly, 1999	individual	140	identity	task-focused	affective	social	0.35
Riordan & Weatherly, 1999	individual	309	identity	task-focused	affective	social	0.41
Sourdif, 2004	individual	108	identity	mixed	affective	generic	0.49
Steel, Shane, & Kennedy, 1990	individual	69	identity	mixed	affective	task	0.46
Whitney, 1994	team	36	identity	task-focused	affective	social	0.50
Wong, 1999	individual	134	identity	social-focused	affective	social	0.27
Wong, 1999	individual	134	identity	mixed	affective	social	0.34
Yoon, Baker, & Ko, 1994	individual	1621	identity	social-focused	affective	social	0.29
Antar, 2013	individual	102	identity	task-focused	affective	generic	0.88
Iverson & Roy, 1994	individual	246	identity	mixed	affective	social	0.36
Jacques, 1998	individual	556	identity	social-focused	affective	social	0.41
Jacques, 1998	individual	556	identity	social-focused	affective	social	0.38
Kammeyer-Mueller, 2002	individual	589	identity	social-focused	affective	social	0.41
Keup, 2001	individual	429	identity	social-focused	affective	social	0.27
Kidwell, Mossholder, & Bennett, 1997	individual	260	identity	social-focused	affective	social	0.49
Ladebo, 2006	individual	296	identity	social-focused	affective	generic	0.76
Lea, Spears, & de Groot, 2001	individual	50	identity	social-focused	affective	generic	0.51
Leiter, 1992	individual	121	identity	social-focused	affective	social	0.32
Miklos, 1999	individual	75	identity	mixed	affective	generic	0.18
Rosenberg, 1995	individual	100	identity	social-focused	affective	social	0.60
Rosenberg, 1995	team	70	identity	social-focused	affective	social	0.57
Schneider, 1996	individual	169	identity	social-focused	affective	task	0.42
Schneider, 1996	individual	169	identity	social-focused	affective	task	0.58
Schneider, 1996	individual	169	identity	social-focused	affective	social	0.34
Schneider, 1996	individual	169	identity	social-focused	affective	social	0.43

Sethi, Smith, & Park, 2001	individual	141	identity	social-focused	affective	social	0.34
Young, 2001	team	80	identity	social-focused	affective	generic	0.61
Harrison, Price, & Bell, 1998	team	71	identity	mixed	affective	social	0.28
Pillai & Williams, 2004	individual	271	identity	social-focused	affective	social	0.35
Nakata & Im, 2010	team	206	identity	social-focused	affective	social	0.72
Vallejo-Martos, 2011	individual	295	identity	social-focused	affective	generic	0.50
Vallejo-Martos, 2011	individual	295	identity	mixed	affective	generic	0.28
Vallejo-Martos, 2011	individual	295	identity	social-focused	affective	generic	0.47
Cohen, Ben-Tura, & Vashdi, 2012	individual	223	identity	social-focused	affective	social	0.09
Klein, & Mulvey, 1995	team	52	identity	task-focused	affective	generic	0.55
Klein, & Mulvey, 1995	team	89	identity	task-focused	affective	generic	0.39
Kowtha, 2008	individual	135	identity	mixed	affective	social	0.39
Mueller, Boyer, Price, & Iverson, 1994	individual	305	identity	mixed	affective	social	0.53
Pillai & Williams, 2004	individual	271	identity	social-focused	affective	generic	0.35
Costa & Anderson, 2011	team	112	identity	social-focused	affective	generic	0.39
Polzer, Milton, & Swann, 2002	team	83	identity	social-focused	affective	generic	0.66
Barsness, 1997	team	138	identity	mixed	affective	generic	0.34
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	shared cognition	task-focused	affective	generic	0.36
Forrester & Tashchian, 2004	individual	78	shared cognition	task-focused	cognitive	task	0.14
Forrester & Tashchian, 2004	individual	78	shared cognition	task-focused	cognitive	social	0.33
Hirschfeld & Bernerth, 2008	team	110	shared cognition	task-focused	cognitive	social	0.20
Hirschfeld, Jordan, Thomas, & Feild, 2008	individual	472	shared cognition	task-focused	cognitive	social	0.07
Kammeyer-Mueller, & Wanberg, 2003	individual	589	shared cognition	task-focused	cognitive	social	0.17
Kammeyer-Mueller, & Wanberg, 2003	individual	589	shared cognition	task-focused	cognitive	social	0.29
Kammeyer-Mueller, & Wanberg, 2003	individual	589	shared cognition	mixed	cognitive	social	0.30
Villado & Arthur, 2013	team	47	shared cognition	task-focused	cognitive	social	-0.03
Villado & Arthur, 2013	team	47	shared cognition	task-focused	cognitive	social	0.02
Villado & Arthur, 2013	team	47	shared cognition	task-focused	cognitive	social	-0.04
Vissa & Chacar, 2009	team	84	shared cognition	task-focused	cognitive	social	0.22

Wong, 2003	team	74	shared cognition	task-focused	cognitive	social	0.17
Wong, 2003	team	74	shared cognition	task-focused	cognitive	social	0.55
Wong, 2003	team	74	shared cognition	task-focused	cognitive	social	0.09
Wong, 2003	team	74	shared cognition	task-focused	cognitive	social	0.27
Bakker, Boroş, Kenis, & Oerlemans, 2013	team	89	shared cognition	task-focused	cognitive	generic	0.39
Huang, 2009	individual	290	shared cognition	task-focused	cognitive	generic	0.61
Olukayode & Ehigie, 2005	team	54	shared cognition	task-focused	affective	social	0.49
Ensley & Hmieleski, 2005	team	256	shared cognition	task-focused	cognitive	generic	0.51
Xiang, Lu, & Gupta, 2013	team	118	shared cognition	task-focused	affective	social	0.41
Xiang, Lu, & Gupta, 2013	team	118	shared cognition	task-focused	affective	social	0.32
Tjosvold, Chen, Huang, & Xu, 2014	team	60	shared cognition	task-focused	affective	social	0.42
Tjosvold, Chen, Huang, & Xu, 2014	team	60	shared cognition	task-focused	affective	social	0.48
Yang, Kang, & Mason, 2008	team	83	shared cognition	task-focused	affective	group pride	0.51
Jansen, George, Van den Bosch, & Volberda, 2008	team	89	shared cognition	task-focused	affective	social	0.51
Andrews, Kacmar, Blakely, & Bucklew, 2008	individual	138	trust	task-focused	affective	generic	0.40
Andrews, Kacmar, Blakely, & Bucklew, 2008	individual	138	trust	task-focused	affective	generic	0.51
Andrews, Kacmar, Blakely, & Bucklew, 2008	individual	138	trust	social-focused	affective	generic	0.47
Andrews, Kacmar, Blakely, & Bucklew, 2008	individual	138	trust	task-focused	affective	generic	0.50
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	trust	mixed	affective	generic	0.67
Brahm & Kunze, 2012	team	50	trust	mixed	affective	task	0.73
Chen, Lam, Naumann, & Schaubroeck, 2005	team	148	trust	task-focused	affective	social	0.24
Depasquale, 2003	individual	219	trust	task-focused	affective	social	0.61
Depasquale, 2003	individual	219	trust	task-focused	affective	social	0.63
Depasquale, 2003	individual	219	trust	task-focused	affective	social	0.04

Depasquale, 2003	individual	219	trust	social-focused	affective	social	0.62
Depasquale, 2003	individual	219	trust	social-focused	affective	social	0.63
Depasquale, 2003	individual	219	trust	social-focused	affective	social	0.68
Dubin, 2012	team	735	trust	mixed	affective	generic	0.03
Dubin, 2012	team	735	trust	mixed	affective	generic	0.24
Dubin, 2012	team	2395	trust	mixed	affective	generic	0.22
Dubin, 2012	team	2395	trust	mixed	affective	generic	0.22
Fonner, 2007	individual	120	trust	task-focused	affective	generic	0.62
Fonner, 2007	individual	105	trust	task-focused	affective	generic	0.44
Gilbert & Tang, 1998	individual	83	trust	social-focused	affective	social	0.48
Huang, Kahai, & Jestice, 2010	team	95	trust	social-focused	affective	task	0.64
Jarvenpaa, Shaw, & Staples, 2004	individual	51	trust	task-focused	affective	generic	0.55
Kayes, 2006	team	62	trust	mixed	affective	social	0.56
Kring, 2005	team	32	trust	task-focused	affective	task	0.65
Kring, 2005	team	32	trust	task-focused	affective	task	0.51
Kring, 2005	team	32	trust	task-focused	affective	task	0.29
Kring, 2005	team	32	trust	task-focused	affective	task	0.22
Kring, 2005	team	32	trust	social-focused	affective	task	0.50
Kring, 2005	team	32	trust	social-focused	affective	task	0.49
Kring, 2005	team	32	trust	social-focused	affective	task	0.53

Kring, 2005	team	32	trust	social-focused	affective	task	0.47
Kring, 2005	team	32	trust	task-focused	affective	social	0.04
Kring, 2005	team	32	trust	task-focused	affective	social	0.05
Kring, 2005	team	32	trust	task-focused	affective	social	0.31
Kring, 2005	team	32	trust	task-focused	affective	social	0.10
Kring, 2005	team	32	trust	social-focused	affective	social	0.16
Kring, 2005	team	32	trust	social-focused	affective	social	0.19
Kring, 2005	team	32	trust	social-focused	affective	social	0.39
Kring, 2005	team	32	trust	social-focused	affective	social	0.41
Kuo & Yu, 2009	individual	158	trust	mixed	affective	generic	0.77
Kuo & Yu, 2009	individual	158	trust	mixed	affective	generic	0.34
Kuo & Yu, 2009	individual	158	trust	mixed	affective	generic	0.37
Kuo & Yu, 2009	individual	158	trust	mixed	affective	generic	0.67
Lehmann-Willenbrock & Kauffeld, 2010	individual	247	trust	mixed	affective	generic	0.65
Lehmann-Willenbrock & Kauffeld, 2010	individual	247	trust	mixed	affective	generic	0.36
Lehmann-Willenbrock & Kauffeld, 2010	individual	247	trust	mixed	affective	generic	0.48
Leon, Kafner, Hoffman, & Dupre, 1994	individual	11	trust	task-focused	affective	generic	0.83
Mesmer-Magnus & Glew, 2012	individual	194	trust	mixed	affective	generic	0.40
Naumann, & Bennett, 2000	team	34	trust	task-focused	affective	social	0.49
Phillips, 1996	team	91	trust	task-focused	affective	generic	0.84

Purvanova, 2009	team	112	trust	mixed	affective	task	0.49
Raes, Decuyper, Lismont, Van den Bossche, Kyndt, Demeyere, et al., 2013	team	28	trust	mixed	affective	social	0.80
Ronen & Mikulincer, 2009	individual	393	trust	social-focused	affective	task	0.51
Wolff, 1998	team	69	trust	mixed	affective	social	0.61
Wolff, 1998	team	69	trust	mixed	affective	social	0.53
Wolff, 1998	team	69	trust	mixed	affective	social	0.76
Antar, 2013	individual	102	trust	mixed	affective	generic	0.75
He, 2010	individual	136	trust	mixed	affective	task	0.79
Hu, 2013	team	67	trust	task-focused	affective	generic	0.62
Iverson & Roy, 1994	individual	246	trust	task-focused	affective	social	-0.28
Ladebo, 2006	individual	296	trust	social-focused	affective	generic	0.39
Lipponen, Olkkonen, & Myyry, 2004	individual	160	trust	task-focused	affective	group pride	0.29
Lipponen, Olkkonen, & Myyry, 2004	individual	160	trust	task-focused	affective	group pride	0.35
Macintyre, 2002	individual	964	trust	mixed	affective	generic	0.36
Macintyre, 2002	individual	936	trust	mixed	affective	generic	0.30
Owens, 2012	individual	111	trust	task-focused	affective	generic	0.24
Ruiz Jiménez, Vallejo Martos, & Martínez Jiménez, 2013	individual	295	trust	task-focused	affective	social	0.74
Strang, Funke, Russell, Dukes, & Middendorf, 2014	team	20	trust	mixed	affective	generic	0.56
Young, 2001	team	80	trust	task-focused	affective	generic	0.59

Dayan & Di Benedetto 2008	individual	117	trust	task-focused	affective	group pride	0.37
Dayan & Di Benedetto 2008	individual	117	trust	mixed	affective	group pride	0.18
Hansen, Morrow, & Batista, 2002	individual	46	trust	social-focused	affective	generic	0.59
Hansen, Morrow, & Batista, 2002	individual	614	trust	social-focused	affective	generic	0.38
Huang, 2009	individual	290	trust	social-focused	affective	generic	0.59
Vallejo-Martos, 2011	individual	295	trust	mixed	affective	generic	0.74
Webber	team	31	trust	task-focused	affective	social	0.58
Webber	team	31	trust	social-focused	affective	social	0.77
DeOrtentiis, Summers, Ammeter, Douglas, & Ferris, 2013	individual	84	trust	task-focused	affective	social	0.08
DeOrtentiis, Summers, Ammeter, Douglas, & Ferris, 2013	individual	84	trust	task-focused	affective	social	0.51
Mueller, Boyer, Price, & Iverson, 1994	individual	305	trust	task-focused	affective	social	0.40
Chou, Wang, Wang, Huang, & Cheng, 2008	individual	346	trust	mixed	affective	task	0.53
Chou, Wang, Wang, Huang, & Cheng, 2008	individual	344	trust	mixed	affective	task	0.26
Costa & Anderson, 2011	team	112	trust	social-focused	affective	generic	0.34
Costa & Anderson, 2011	team	112	trust	task-focused	affective	generic	0.38
Peterson, 2012	individual	263	trust	social-focused	affective	social	0.65
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	trust	mixed	affective	task	0.41
Team Composition							
Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	abilities/competencies	deep-level	diversity	generic	0.29

Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	abilities/competencies	deep-level	diversity	generic	-0.07
Barrick, Stewart, Neubert, & Mount, 1998	team	51	abilities/competencies	deep-level	similarity	social	-0.01
Barrick, Stewart, Neubert, & Mount, 1998	team	51	abilities/competencies	deep-level	diversity	social	0.02
Barrick, Stewart, Neubert, & Mount, 1998	team	51	abilities/competencies	deep-level	min/max	social	0.04
Barrick, Stewart, Neubert, & Mount, 1998	team	51	abilities/competencies	deep-level	min/max	social	-0.24
Brahm & Kunze, 2012	team	50	abilities/competencies	deep-level	diversity	task	0.11
Gupta, Huang, & Niranjan, 2010	team	28	abilities/competencies	deep-level	diversity	generic	0.00
Hausknecht, Trevor, & Howard, 2009	team	75	abilities/competencies	deep-level	diversity	generic	0.18
Kayes, 2006	team	62	abilities/competencies	deep-level	similarity	social	0.09
Kayes, 2006	team	62	abilities/competencies	deep-level	similarity	social	-0.17
Kayes, 2006	team	62	abilities/competencies	deep-level	similarity	social	-0.02
Kayes, 2006	team	62	abilities/competencies	deep-level	similarity	social	0.06
Keller, 2001	team	93	abilities/competencies	deep-level	diversity	social	-0.15
Keller, 2001	team	93	abilities/competencies	deep-level	diversity	social	0.27
Kruger, Botman, & Goodenow, 1991	individual	78	abilities/competencies	deep-level	individual level	generic	0.13
Kruger, Botman, & Goodenow, 1991	individual	78	abilities/competencies	deep-level	individual level	generic	0.14
Lin & Peng, 2010	team	62	abilities/competencies	deep-level	diversity	social	0.19
Lin & Peng, 2010	team	62	abilities/competencies	deep-level	diversity	social	0.15
Liu, Liu, Kwan, & Mao, 2009	individual	512	abilities/competencies	deep-level	individual level	generic	0.00
Liu, Liu, Kwan, & Mao, 2009	individual	512	abilities/competencies	deep-level	individual level	generic	-0.47
Michaels & Dixon, 1994	individual	215	abilities/competencies	deep-level	individual level	generic	0.05
Michaels & Dixon, 1994	individual	1005	abilities/competencies	deep-level	individual level	generic	0.05
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.21
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.15
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.20
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.37
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.48
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.34
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.23

Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.37
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.47
Millikin, Hom, & Manz, 2010	team	21	abilities/competencies	deep-level	similarity	social	0.37
Molleman, 2005	team	99	abilities/competencies	deep-level	diversity	generic	-0.11
Molleman, 2005	team	99	abilities/competencies	deep-level	diversity	generic	-0.04
Moore & Mamiseishvili, 2012	team	44	abilities/competencies	deep-level	similarity	task	0.87
Moore & Mamiseishvili, 2012	team	44	abilities/competencies	deep-level	diversity	task	-0.26
Moore & Mamiseishvili, 2012	team	44	abilities/competencies	deep-level	min/max	task	0.77
Moore & Mamiseishvili, 2012	team	44	abilities/competencies	deep-level	min/max	task	0.65
Naumann, & Bennett, 2000	team	34	abilities/competencies	deep-level	diversity	social	0.17
Naumann, & Bennett, 2000	team	34	abilities/competencies	deep-level	diversity	social	-0.04
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	social	-0.03
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	social	-0.03
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	social	0.15
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	social	0.03
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	task	-0.02
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	task	-0.14
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	task	0.15
Panzer, 2003	team	66	abilities/competencies	deep-level	similarity	task	0.07
Quigley, Tekleab, & Tesluk, 2007	team	53	abilities/competencies	deep-level	similarity	generic	-0.02
Quigley, Tekleab, & Tesluk, 2007	team	53	abilities/competencies	deep-level	similarity	generic	-0.07
Quoidbach & Hansenne, 2009	team	23	abilities/competencies	deep-level	similarity	social	0.39
Quoidbach & Hansenne, 2009	team	23	abilities/competencies	deep-level	min/max	social	0.12
Quoidbach & Hansenne, 2009	team	23	abilities/competencies	deep-level	min/max	social	0.17
Quoidbach & Hansenne, 2009	team	23	abilities/competencies	deep-level	diversity	social	-0.05
Sanders, 2004	team	8	abilities/competencies	deep-level	similarity	social	-0.37
Sanders, 2004	team	9	abilities/competencies	deep-level	similarity	social	0.17
Sandvig, 2008	individual	69	abilities/competencies	deep-level	individual level	generic	0.58
Troth, Jordan, & Lawrence, 2012	individual	273	abilities/competencies	deep-level	individual level	generic	-0.02
Troth, Jordan, & Lawrence, 2012	individual	273	abilities/competencies	deep-level	individual level	generic	0.09

Troth, Jordan, & Lawrence, 2012	individual	273	abilities/competencies	deep-level	individual level	generic	-0.02
Troth, Jordan, & Lawrence, 2012	individual	273	abilities/competencies	deep-level	individual level	generic	0.13
Vissa & Chacar, 2009	team	84	abilities/competencies	deep-level	diversity	social	0.10
Wei & Wu, 2013	team	118	abilities/competencies	deep-level	diversity	generic	0.08
Wei & Wu, 2013	team	118	abilities/competencies	deep-level	diversity	generic	-0.13
Wei & Wu, 2013	team	118	abilities/competencies	deep-level	diversity	generic	0.01
Wei & Wu, 2013	team	118	abilities/competencies	deep-level	diversity	generic	0.05
Whalen, 2012	team	55	abilities/competencies	deep-level	similarity	generic	-0.06
Whalen, 2012	team	55	abilities/competencies	deep-level	similarity	generic	-0.12
Whalen, 2012	team	55	abilities/competencies	deep-level	diversity	generic	0.12
Wong, 2003	team	74	abilities/competencies	deep-level	diversity	social	-0.06
Yousofpourfard, 2012	team	41	abilities/competencies	deep-level	similarity	social	-0.10
Zahrly & Tosi, 1989	individual	64	abilities/competencies	deep-level	individual level	social	0.05
Zahrly & Tosi, 1989	individual	64	abilities/competencies	deep-level	individual level	social	0.26
Ziegert, 2005	team	39	abilities/competencies	deep-level	similarity	social	-0.17
Ziegert, 2005	team	39	abilities/competencies	deep-level	similarity	social	0.29
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	abilities/competencies	deep-level	similarity	social	0.04
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	abilities/competencies	deep-level	similarity	social	0.07
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	social	0.06
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	social	0.03
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	social	-0.02
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	social	0.01
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	task	0.01
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	task	0.01
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	task	0.04
Erdheim, 2007	team	61	abilities/competencies	deep-level	similarity	task	0.02
Graebner, 2012	team	81	abilities/competencies	deep-level	similarity	social	-0.22
Graebner, 2012	team	81	abilities/competencies	deep-level	similarity	social	0.00

Haas, 2000	individual	77	abilities/competencies	deep-level	individual level	generic	0.54
Haas, 2000	individual	77	abilities/competencies	deep-level	individual level	generic	0.60
Haas, 2000	individual	77	abilities/competencies	deep-level	individual level	generic	0.48
Jordan, Feild, & Armenakis, 2002	team	50	abilities/competencies	deep-level	similarity	social	0.03
Kafetsios, Nezlek, & Vassilakou, 2012	team	51	abilities/competencies	deep-level	similarity	social	0.45
Kafetsios, Nezlek, & Vassilakou, 2012	team	51	abilities/competencies	deep-level	similarity	social	0.23
Kickul, 2000	team	61	abilities/competencies	deep-level	similarity	social	0.02
Kirtley, 2000	individual	129	abilities/competencies	deep-level	individual level	task	-0.02
Kirtley, 2000	individual	129	abilities/competencies	deep-level	individual level	task	0.04
Miklos, 1999	individual	75	abilities/competencies	deep-level	diversity	generic	-0.33
Miklos, 1999	individual	75	abilities/competencies	deep-level	diversity	generic	-0.14
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	-0.05
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.63
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.20
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.32
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.36
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.34
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.63
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.47
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.49
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.40
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.43
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	0.44
Rapisarda, 2003	team	16	abilities/competencies	deep-level	similarity	social	-0.26
Sethi, Smith, & Park, 2001	individual	141	abilities/competencies	deep-level	diversity	social	0.10
Strang, Funke, Russell, Dukes, & Middendorf, 2014	team	20	abilities/competencies	deep-level	similarity	generic	0.12
Tesluk, 1997	team	114	abilities/competencies	deep-level	similarity	task	0.66
Tesluk, 1997	team	114	abilities/competencies	deep-level	similarity	task	0.59
Tesluk, 1997	team	114	abilities/competencies	deep-level	similarity	social	0.48

Tesluk, 1997	team	114	abilities/competencies	deep-level	similarity	social	0.39
Tung & Chang, 2011	team	79	abilities/competencies	deep-level	diversity	generic	0.06
Wolfe & Box, 1988	team	36	abilities/competencies	deep-level	min/max	social	0.11
Wolfe & Box, 1988	team	36	abilities/competencies	deep-level	similarity	social	0.11
Wolfe & Box, 1988	team	36	abilities/competencies	deep-level	diversity	social	-0.07
Wolfe & Box, 1988	team	36	abilities/competencies	deep-level	similarity	social	-0.10
Wolfe & Box, 1988	team	36	abilities/competencies	deep-level	similarity	social	0.47
Anderson, Hesford, & Young, 2002	team	18	abilities/competencies	deep-level	diversity	social	0.39
Keller, 1986	team	32	abilities/competencies	deep-level	similarity	generic	-0.39
McComb, Green, & Compton, 2007	team	60	abilities/competencies	deep-level	diversity	social	-0.04
Olukayode & Ehigie, 2005	team	54	abilities/competencies	deep-level	similarity	social	0.06
Shinh & Choi, 2010	team	43	abilities/competencies	deep-level	similarity	social	0.42
Stashevsky & Koslowsky, 2006	individual	252	abilities/competencies	deep-level	individual level	task	0.00
Wang, Chen, Lin, & Hsu, 2010	team	109	abilities/competencies	deep-level	diversity	task	-0.08
Williams & Castro, 2010	team	47	abilities/competencies	deep-level	similarity	social	-0.54
Wood, Michaelides, & Thomson, 2013	team	40	abilities/competencies	deep-level	diversity	social	0.40
Wood, Michaelides, & Thomson, 2013	team	40	abilities/competencies	deep-level	diversity	group pride	0.25
Carlson, Carlson, Hunter, Vaughn, & George, 2013	individual	365	abilities/competencies	deep-level	individual level	social	0.21
Ensley & Hmieleski, 2005	team	256	abilities/competencies	deep-level	diversity	generic	-0.11
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	abilities/competencies	deep-level	diversity	task	0.24
Yang, Kang, & Mason, 2008	team	83	abilities/competencies	deep-level	similarity	group pride	0.01
Yang, Kang, & Mason, 2008	team	83	abilities/competencies	deep-level	similarity	group pride	0.26
Polzer, Milton, & Swann, 2002	team	83	abilities/competencies	deep-level	similarity	generic	0.26
Polzer, Milton, & Swann, 2002	team	83	abilities/competencies	deep-level	diversity	generic	-0.13
Barsness, 1997	team	138	abilities/competencies	deep-level	diversity	generic	0.04
Foo, Sin, & Yiong, 2006	team	51	abilities/competencies	deep-level	diversity	generic	-0.25
Lin & Shih, 2008	team	201	abilities/competencies	deep-level	diversity	social	0.08
Lin & Shih, 2008	team	201	abilities/competencies	deep-level	similarity	social	0.12

Smith, Smith, Olian, & Sims, 1994	team	53	abilities/competencies	deep-level	diversity	generic	-0.32
Smith, Smith, Olian, & Sims, 1994	team	53	abilities/competencies	deep-level	diversity	generic	-0.32
Smith, Smith, Olian, & Sims, 1994	team	53	abilities/competencies	deep-level	diversity	generic	0.02
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	abilities/competencies	deep-level	diversity	social	0.03
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	abilities/competencies	deep-level	diversity	social	0.16
Anderson, 1975	team	40	attitudes/values	deep-level	similarity	social	0.41
Anderson, 1975	team	40	attitudes/values	deep-level	similarity	social	-0.08
Anderson, 1975	team	40	attitudes/values	deep-level	similarity	generic	-0.10
Carless & de Paola, 2000	individual	120	attitudes/values	deep-level	individual level	task	0.24
Carless & de Paola, 2000	individual	120	attitudes/values	deep-level	individual level	social	0.25
Carless & de Paola, 2000	individual	120	attitudes/values	deep-level	individual level	group pride	0.28
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.06
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	-0.04
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.03
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.22
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.15
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.09
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.22
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.22
Depasquale, 2003	individual	219	attitudes/values	deep-level	individual level	social	0.26
Dolfi, 1998	individual	427	attitudes/values	deep-level	individual level	social	0.37
Dolfi, 1998	individual	427	attitudes/values	deep-level	individual level	social	-0.06
Duron, 2000	team	5	attitudes/values	deep-level	similarity	social	0.81
Duron, 2000	team	5	attitudes/values	deep-level	similarity	social	0.85
Duron, 2000	team	5	attitudes/values	deep-level	similarity	social	-0.27
Duron, 2000	team	5	attitudes/values	deep-level	similarity	social	0.75
Eisenberg, 2002	individual	340	attitudes/values	deep-level	individual level	generic	0.08
Elron, 1997	team	109	attitudes/values	deep-level	diversity	social	-0.08
Hirschfeld, Jordan, Thomas, & Feild, 2008	individual	472	attitudes/values	deep-level	individual level	social	-0.02

MacDonnell, O'Neill, Kline, & Hambley, 2009	team	35	attitudes/values	deep-level	similarity	social	0.24
MacDonnell, O'Neill, Kline, & Hambley, 2009	team	27	attitudes/values	deep-level	similarity	social	0.08
Man & Lam, 2003	team	381	attitudes/values	deep-level	similarity	task	0.18
Pillutla, Farh, Lee, & Lin, 2007	individual	257	attitudes/values	deep-level	individual level	generic	0.09
Pillutla, Farh, Lee, & Lin, 2007	individual	257	attitudes/values	deep-level	individual level	generic	0.01
Quigley, Tekleab, & Tesluk, 2007	team	53	attitudes/values	deep-level	similarity	generic	0.08
Rapp, 2010	individual	113	attitudes/values	deep-level	individual level	social	0.02
Rapp, 2010	individual	113	attitudes/values	deep-level	individual level	social	0.10
Rapp, 2010	individual	113	attitudes/values	deep-level	individual level	social	0.13
Sanders, 2004	team	8	attitudes/values	deep-level	similarity	social	0.90
Sanders, 2004	team	9	attitudes/values	deep-level	similarity	social	0.54
Sarris & Kirby, 2005	individual	112	attitudes/values	deep-level	individual level	generic	0.39
Sarris & Kirby, 2005	individual	112	attitudes/values	deep-level	individual level	generic	0.47
Schminke, Wells, Peyrefitte, & Sebora, 2002	individual	150	attitudes/values	deep-level	individual level	social	0.06
Schminke, Wells, Peyrefitte, & Sebora, 2002	individual	150	attitudes/values	deep-level	individual level	social	-0.01
Staples & Zhao, 2006	team	40	attitudes/values	deep-level	diversity	generic	-0.29
Staples & Zhao, 2006	team	39	attitudes/values	deep-level	diversity	generic	-0.33
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	attitudes/values	deep-level	individual level	generic	0.32
Wendt, Euwema, & van Emmerik, 2009	individual	29868	attitudes/values	deep-level	similarity	generic	0.07
Wendt, Euwema, & van Emmerik, 2009	individual	29868	attitudes/values	deep-level	similarity	generic	-0.06
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	0.08
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	-0.06
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	-0.25
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	-0.02
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	0.06
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	0.02
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	0.01

Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	-0.23
Woehr, Arciniega, & Poling, 2013	team	60	attitudes/values	deep-level	diversity	generic	-0.04
Yousofpourfard, 2012	team	41	attitudes/values	deep-level	diversity	social	0.02
Yousofpourfard, 2012	team	41	attitudes/values	deep-level	similarity	social	0.04
Gal, 1986	individual	1200	attitudes/values	deep-level	individual level	generic	0.36
Harris, 1989	team	39	attitudes/values	deep-level	similarity	generic	0.02
Heiney, 1999	team	80	attitudes/values	deep-level	similarity	social	0.33
Hogg, Cooper-Shaw, & Holzworth, 1993	individual	112	attitudes/values	deep-level	similarity	task	0.12
Kalam, 2008	individual	184	attitudes/values	deep-level	diversity	social	-0.60
Kalam, 2008	individual	184	attitudes/values	deep-level	similarity	social	0.81
Kirtley, 2000	individual	129	attitudes/values	deep-level	individual level	task	0.18
Klinsontorn, 2002	individual	216	attitudes/values	deep-level	individual level	task	0.19
Klinsontorn, 2002	individual	216	attitudes/values	deep-level	individual level	task	-0.17
Klinsontorn, 2002	individual	216	attitudes/values	deep-level	individual level	task	0.25
Ko, 2005	team	75	attitudes/values	deep-level	similarity	social	0.20
Ko, 2005	team	75	attitudes/values	deep-level	similarity	social	-0.19
Lipponen, Olkkonen, & Myyry, 2004	individual	160	attitudes/values	deep-level	individual level	group pride	-0.08
Macintyre, 2002	individual	964	attitudes/values	deep-level	individual level	generic	0.14
Macintyre, 2002	individual	936	attitudes/values	deep-level	individual level	generic	0.14
Roulin, Mayor, & Bangerter, 2014	individual	1547	attitudes/values	deep-level	diversity	social	-0.07
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	task	0.04
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	task	0.19
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	task	0.17
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	task	0.21
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	social	0.06
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	social	0.04
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	social	0.18
Schneider, 1996	individual	169	attitudes/values	deep-level	individual level	social	0.01
Slatten, Carson, Baker, & Carson, 2013	individual	242	attitudes/values	deep-level	individual level	social	0.32
Harrison, Price, & Bell, 1998	team	71	attitudes/values	deep-level	diversity	social	-0.40

Harrison, Price, & Bell, 1998	team	71	attitudes/values	deep-level	diversity	social	-0.17
Keller, 1986	team	32	attitudes/values	deep-level	similarity	generic	0.06
Schminke & Wells, 1999	individual	81	attitudes/values	deep-level	individual level	social	0.00
Schminke & Wells, 1999	individual	81	attitudes/values	deep-level	individual level	social	0.13
Schminke & Wells, 1999	individual	81	attitudes/values	deep-level	individual level	social	0.07
Schminke & Wells, 1999	individual	81	attitudes/values	deep-level	individual level	social	0.19
Shinh & Choi, 2010	team	43	attitudes/values	deep-level	similarity	social	0.47
Williams, Duray, & Reddy, 2006	individual	104	attitudes/values	deep-level	individual level	task	0.37
Chou, Wang, Wang, Huang, & Cheng, 2008	individual	406	attitudes/values	deep-level	similarity	task	0.17
Chou, Wang, Wang, Huang, & Cheng, 2008	individual	406	attitudes/values	deep-level	diversity	task	0.16
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	attitudes/values	deep-level	diversity	task	-0.67
Harrison, Price, Gavin, & Florey, 2002	team	144	attitudes/values	deep-level	similarity	social	-0.05
Harrison, Price, Gavin, & Florey, 2002	team	144	attitudes/values	deep-level	similarity	social	0.01
Harrison, Price, Gavin, & Florey, 2002	team	144	attitudes/values	deep-level	diversity	social	-0.14
Harrison, Price, Gavin, & Florey, 2002	team	144	attitudes/values	deep-level	diversity	social	-0.21
Harrison, Price, Gavin, & Florey, 2002	team	144	attitudes/values	deep-level	diversity	social	-0.57
Polzer, Milton, & Swann, 2002	team	83	attitudes/values	deep-level	diversity	generic	0.24
Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	demographics	surface-level	diversity	generic	0.15
Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	demographics	surface-level	diversity	generic	0.02
Brahm & Kunze, 2012	team	50	demographics	surface-level	diversity	task	0.19
Brahm & Kunze, 2012	team	50	demographics	surface-level	diversity	task	0.16
Dubin, 2012	team	735	demographics	surface-level	diversity	generic	-0.06
Dubin, 2012	team	735	demographics	surface-level	diversity	generic	-0.31
Dubin, 2012	team	2395	demographics	surface-level	diversity	generic	-0.08
Dubin, 2012	team	2395	demographics	surface-level	diversity	generic	-0.26
Dubin, 2012	team	3792	demographics	surface-level	diversity	generic	-0.10
Dubin, 2012	team	3792	demographics	surface-level	diversity	generic	-0.32

Gupta, Huang, & Niranjan, 2010	team	28	demographics	surface-level	diversity	generic	0.16
Hirschfeld & Bernerth, 2008	team	110	demographics	surface-level	diversity	social	-0.18
Hirschfeld, Jordan, Feild, Giles, & Armenakis, 2005	team	92	demographics	surface-level	diversity	social	-0.01
Lee & Farh, 2004	team	45	demographics	surface-level	diversity	generic	0.03
Lin & Peng, 2010	team	62	demographics	surface-level	diversity	social	0.22
Lin & Peng, 2010	team	62	demographics	surface-level	diversity	social	0.16
Molleman, 2005	team	99	demographics	surface-level	diversity	generic	-0.21
Molleman, 2005	team	99	demographics	surface-level	diversity	generic	-0.22
Naumann, & Bennett, 2000	team	34	demographics	surface-level	diversity	social	0.09
Naumann, & Bennett, 2000	team	34	demographics	surface-level	diversity	social	-0.13
Naumann, & Bennett, 2000	team	34	demographics	surface-level	diversity	social	-0.27
Sanders, 2004	team	8	demographics	surface-level	similarity	social	0.24
Sanders, 2004	team	8	demographics	surface-level	similarity	social	0.01
Sanders, 2004	team	9	demographics	surface-level	similarity	social	0.09
Sanders, 2004	team	9	demographics	surface-level	similarity	social	0.07
Szumal, 1996	team	50	demographics	surface-level	diversity	social	-0.05
Szumal, 1996	team	50	demographics	surface-level	diversity	social	-0.15
Wei & Wu, 2013	team	118	demographics	surface-level	diversity	generic	0.10
Wei & Wu, 2013	team	118	demographics	surface-level	diversity	generic	0.08
Yousofpourfard, 2012	team	41	demographics	surface-level	diversity	social	-0.52
Kay, 1997	team	20	demographics	surface-level	similarity	generic	0.48
Miklos, 1999	individual	75	demographics	surface-level	diversity	generic	0.04
Harrison, Price, & Bell, 1998	team	71	demographics	surface-level	diversity	social	-0.02
Harrison, Price, & Bell, 1998	team	71	demographics	surface-level	diversity	social	-0.18
Harrison, Price, & Bell, 1998	team	71	demographics	surface-level	diversity	social	-0.29
Venkatesh & Windeler, 2012	team	44	demographics	surface-level	similarity	social	0.13
Venkatesh & Windeler, 2012	team	47	demographics	surface-level	similarity	social	0.14
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	demographics	surface-level	diversity	task	0.36

Harrison, Price, Gavin, & Florey, 2002	team	144	demographics	surface-level	diversity	social	0.01
Harrison, Price, Gavin, & Florey, 2002	team	144	demographics	surface-level	diversity	social	-0.09
Harrison, Price, Gavin, & Florey, 2002	team	144	demographics	surface-level	diversity	social	-0.18
Harrison, Price, Gavin, & Florey, 2002	team	144	demographics	surface-level	diversity	social	-0.04
Harrison, Price, Gavin, & Florey, 2002	team	144	demographics	surface-level	diversity	social	-0.41
Polzer, Milton, & Swann, 2002	team	83	demographics	surface-level	diversity	generic	-0.06
Rico, Molleman, Sánchez-Manzanares, & Van der Vegt, 2007	team	52	demographics	surface-level	diversity	social	-0.05
Rico, Molleman, Sánchez-Manzanares, & Van der Vegt, 2007	team	52	demographics	surface-level	diversity	social	-0.04
Lin & Shih, 2008	team	201	demographics	surface-level	diversity	social	0.01
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	similarity	social	0.00
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	diversity	social	0.03
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	0.14
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	-0.08
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	similarity	social	0.32
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	diversity	social	-0.23
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	0.38
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	-0.39
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	similarity	social	0.36
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	diversity	social	0.35
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	0.24
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	0.33
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	similarity	social	0.53
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	diversity	social	-0.04
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	0.34
Barrick, Stewart, Neubert, & Mount, 1998	team	51	personality	deep-level	min/max	social	0.18
Burnett, 2005	individual	137	personality	deep-level	individual level	task	0.16
Burnett, 2005	individual	137	personality	deep-level	individual level	task	-0.05
Burnett, 2005	individual	137	personality	deep-level	individual level	task	0.09

Burnett, 2005	individual	137	personality	deep-level	individual level	task	0.02
Burnett, 2005	individual	137	personality	deep-level	individual level	task	-0.02
Burnett, 2005	individual	137	personality	deep-level	individual level	task	0.10
Burnett, 2005	individual	137	personality	deep-level	individual level	social	0.24
Burnett, 2005	individual	137	personality	deep-level	individual level	social	-0.15
Burnett, 2005	individual	137	personality	deep-level	individual level	social	0.11
Burnett, 2005	individual	137	personality	deep-level	individual level	social	0.05
Burnett, 2005	individual	137	personality	deep-level	individual level	social	-0.06
Burnett, 2005	individual	137	personality	deep-level	individual level	social	0.08
Chen, Lam, Naumann, & Schaubroeck, 2005	team	148	personality	deep-level	similarity	social	0.32
Chen, Lam, Naumann, & Schaubroeck, 2005	team	148	personality	deep-level	similarity	social	0.30
Dekoekkoek, 2000	individual	194	personality	deep-level	individual level	social	0.49
Geller, Roberts, & Gilmore, 1996	individual	328	personality	deep-level	individual level	social	0.27
Geller, Roberts, & Gilmore, 1996	individual	328	personality	deep-level	individual level	social	0.08
Geller, Roberts, & Gilmore, 1996	individual	202	personality	deep-level	individual level	social	0.23
Geller, Roberts, & Gilmore, 1996	individual	202	personality	deep-level	individual level	social	0.26
Landen & Wang, 2010	individual	173	personality	deep-level	individual level	social	0.29
Landen & Wang, 2010	individual	173	personality	deep-level	individual level	social	0.32
Landen & Wang, 2010	individual	173	personality	deep-level	individual level	social	0.35
Landen & Wang, 2010	individual	173	personality	deep-level	individual level	social	0.24
MacDonnell, O'Neill, Kline, & Hambley, 2009	team	35	personality	deep-level	similarity	social	0.31
MacDonnell, O'Neill, Kline, & Hambley, 2009	team	35	personality	deep-level	similarity	social	-0.11
MacDonnell, O'Neill, Kline, & Hambley, 2009	team	27	personality	deep-level	similarity	social	0.04
MacDonnell, O'Neill, Kline, & Hambley, 2009	team	27	personality	deep-level	similarity	social	0.33
Molleman, 2005	team	99	personality	deep-level	diversity	generic	0.12
Molleman, 2005	team	99	personality	deep-level	diversity	generic	0.07

O'Neill & Kline, 2008	individual	79	personality	deep-level	individual level	generic	0.29
O'Neill & Kline, 2008	individual	79	personality	deep-level	individual level	generic	0.60
Panzer, 2003	team	66	personality	deep-level	similarity	social	0.04
Panzer, 2003	team	66	personality	deep-level	similarity	social	0.15
Panzer, 2003	team	66	personality	deep-level	similarity	social	-0.07
Panzer, 2003	team	66	personality	deep-level	similarity	social	0.28
Panzer, 2003	team	66	personality	deep-level	similarity	social	0.01
Panzer, 2003	team	66	personality	deep-level	similarity	task	0.11
Panzer, 2003	team	66	personality	deep-level	similarity	task	0.26
Panzer, 2003	team	66	personality	deep-level	similarity	task	-0.10
Panzer, 2003	team	66	personality	deep-level	similarity	task	0.01
Panzer, 2003	team	66	personality	deep-level	similarity	task	0.06
Riolli-Saltzman, 1999	individual	150	personality	deep-level	individual level	social	0.08
Ronen & Mikulincer, 2009	individual	393	personality	deep-level	individual level	task	0.18
Ronen & Mikulincer, 2009	individual	393	personality	deep-level	individual level	task	0.22
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	social	0.39
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	social	0.25
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.19
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.18
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	social	0.13
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	social	-0.20
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.07
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.02
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	social	0.30
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	social	0.05
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.25
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.06
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	social	0.17
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	social	-0.03
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.04

Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.13
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	social	-0.02
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	social	0.06
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	0.03
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	social	-0.26
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	task	0.36
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	task	-0.16
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	0.37
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	-0.06
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	task	0.44
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	task	-0.37
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	0.36
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	0.35
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	task	-0.11
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	task	-0.09
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	-0.05
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	0.20
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	task	-0.23
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	task	-0.10
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	0.00
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	-0.16
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	similarity	task	-0.07
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	diversity	task	-0.19
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	0.15
Van Vianen & De Dreu, 2001	team	24	personality	deep-level	min/max	task	-0.17
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	social	0.02
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	social	-0.17
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.09
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.00
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	social	0.13

Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	social	0.30
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	-0.17
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.01
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	social	0.51
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	social	-0.20
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.43
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.43
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	social	0.51
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	social	-0.20
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.23
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.51
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	social	0.28
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	social	-0.01
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	0.13
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	social	-0.20
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	task	0.27
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	task	-0.51
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.41
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.00
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	task	0.31
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	task	-0.22
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.36
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	-0.02
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	task	0.33
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	task	-0.22
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.31
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.27
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	task	0.34
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	task	-0.29
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.33

Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	0.20
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	similarity	task	0.03
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	diversity	task	-0.16
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	-0.05
Van Vianen & De Dreu, 2001	team	25	personality	deep-level	min/max	task	-0.11
Zahrly & Tosi, 1989	individual	64	personality	deep-level	individual level	social	-0.15
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.15
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.12
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	-0.05
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.02
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.16
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.12
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.19
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.04
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.02
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	personality	deep-level	similarity	social	0.29
Chang, Jia, Takeuchi, & Cai, 2014	individual	1059	personality	deep-level	individual level	social	0.02
Erdheim, 2007	team	61	personality	deep-level	similarity	social	0.11
Erdheim, 2007	team	61	personality	deep-level	similarity	social	0.10
Erdheim, 2007	team	61	personality	deep-level	similarity	task	0.01

Erdheim, 2007	team	61	personality	deep-level	similarity	task	0.04
Gard, 2000	individual	640	personality	deep-level	individual level	generic	0.17
Graebner, 2012	team	81	personality	deep-level	similarity	social	0.11
Graebner, 2012	team	81	personality	deep-level	similarity	social	0.13
Graebner, 2012	team	81	personality	deep-level	similarity	social	0.15
Graebner, 2012	team	81	personality	deep-level	similarity	social	0.18
Graebner, 2012	team	81	personality	deep-level	diversity	social	-0.02
Graebner, 2012	team	81	personality	deep-level	similarity	social	0.08
Halfhill, 2001	team	40	personality	deep-level	similarity	social	0.47
Halfhill, 2001	team	40	personality	deep-level	min/max	social	0.29
Halfhill, 2001	team	40	personality	deep-level	min/max	social	0.24
Halfhill, 2001	team	40	personality	deep-level	diversity	social	-0.20
Halfhill, 2001	team	40	personality	deep-level	similarity	social	0.52
Halfhill, 2001	team	40	personality	deep-level	min/max	social	0.30
Halfhill, 2001	team	40	personality	deep-level	min/max	social	0.38
Halfhill, 2001	team	40	personality	deep-level	diversity	social	-0.09
Kammeyer-Mueller, 2002	individual	589	personality	deep-level	individual level	social	0.13
Kickul, 2000	team	61	personality	deep-level	similarity	social	0.11
Kickul, 2000	team	61	personality	deep-level	similarity	social	0.00
Kickul, 2000	team	61	personality	deep-level	similarity	social	0.06
Kickul, 2000	team	61	personality	deep-level	similarity	social	-0.10
Kickul, 2000	team	61	personality	deep-level	similarity	social	0.00
Slatten, Carson, Baker, & Carson, 2013	individual	242	personality	deep-level	individual level	social	0.32
Steinhardt, Dolbier, Gottlieb, & McCalister, 2003	individual	160	personality	deep-level	individual level	task	0.23
Acuña, Gómez, & Juristo, 2009	team	35	personality	deep-level	similarity	generic	0.19
Acuña, Gómez, & Juristo, 2009	team	35	personality	deep-level	similarity	generic	0.47
Acuña, Gómez, & Juristo, 2009	team	35	personality	deep-level	similarity	generic	-0.06
Acuña, Gómez, & Juristo, 2009	team	35	personality	deep-level	similarity	generic	0.38
Acuña, Gómez, & Juristo, 2009	team	35	personality	deep-level	similarity	generic	0.26

Olukayode & Ehigie, 2005	team	54	personality	deep-level	similarity	social	0.66
Olukayode & Ehigie, 2005	team	54	personality	deep-level	similarity	social	0.40
Olukayode & Ehigie, 2005	team	54	personality	deep-level	similarity	social	0.32
Olukayode & Ehigie, 2005	team	54	personality	deep-level	similarity	social	0.37
Olukayode & Ehigie, 2005	team	54	personality	deep-level	similarity	social	0.11
Olukayode & Ehigie, 2005	team	54	personality	deep-level	similarity	social	0.01
Venkatesh & Windeler, 2012	team	44	personality	deep-level	similarity	social	0.15
Venkatesh & Windeler, 2012	team	44	personality	deep-level	similarity	social	0.20
Venkatesh & Windeler, 2012	team	44	personality	deep-level	similarity	social	0.04
Venkatesh & Windeler, 2012	team	44	personality	deep-level	similarity	social	0.02
Venkatesh & Windeler, 2012	team	44	personality	deep-level	similarity	social	0.26
Venkatesh & Windeler, 2012	team	47	personality	deep-level	similarity	social	0.19
Venkatesh & Windeler, 2012	team	47	personality	deep-level	similarity	social	0.20
Venkatesh & Windeler, 2012	team	47	personality	deep-level	similarity	social	0.17
Venkatesh & Windeler, 2012	team	47	personality	deep-level	similarity	social	0.04
Venkatesh & Windeler, 2012	team	47	personality	deep-level	similarity	social	0.28
Demirer, Gures, & Akgul, 2010	individual	198	personality	deep-level	individual level	generic	0.35
Yang, Kang, & Mason, 2008	team	83	personality	deep-level	similarity	group pride	0.13
Harrison, Price, Gavin, & Florey, 2002	team	144	personality	deep-level	similarity	social	0.16
Harrison, Price, Gavin, & Florey, 2002	team	144	personality	deep-level	diversity	social	-0.03
Leadership							
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.21
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.03
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	-0.05
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	social-focused		task	0.11
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.30
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		social	-0.02
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		social	-0.12
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		social	0.11
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	social-focused		social	-0.03

Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		social	0.06
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.19
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	-0.02
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.13
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	social-focused		task	0.09
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.16
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.11
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	-0.10
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.17
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	social-focused		task	0.03
Aoyagi, Cox, & McGuire, 2008	individual	193	leader behaviors	task-focused		task	0.03
Beehr, 1976	individual	587	leader behaviors	mixed		generic	0.13
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	leader behaviors	task-focused		generic	0.02
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	leader behaviors	social-focused		generic	0.44
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	leader behaviors	task-focused		generic	-0.08
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	leader behaviors	task-focused		generic	0.58
Bergman, Rentsch, Small, Davenport, & Bergman, 2012	team	45	leader behaviors	mixed		generic	0.40
Börjesson, Österberg, & Enander, 2011	individual	389	leader behaviors	social-focused		social	0.11
Börjesson, Österberg, & Enander, 2011	individual	389	leader behaviors	task-focused		social	0.04
Börjesson, Österberg, & Enander, 2011	individual	389	leader behaviors	task-focused		social	0.12
Börjesson, Österberg, & Enander, 2011	individual	389	leader behaviors	social-focused		task	0.13
Börjesson, Österberg, & Enander, 2011	individual	389	leader behaviors	task-focused		task	0.11
Börjesson, Österberg, & Enander, 2011	individual	389	leader behaviors	task-focused		task	0.19
Chen, Lam, Naumann, & Schaubroeck, 2005	team	148	leader behaviors	mixed		social	0.38
Cohen, Ben-Tura, & Vashdi, 2012	individual	223	leader behaviors	mixed		social	0.15

Crespell, 2007	individual	198	leader behaviors	task-focused		generic	0.91
Crespell, 2007	individual	221	leader behaviors	task-focused		generic	0.75
Dobbins & Zaccaro, 1986	individual	203	leader behaviors	task-focused		social	0.33
Dobbins & Zaccaro, 1986	individual	203	leader behaviors	social-focused		social	0.37
Frenkel & Sanders, 2007	individual	1210	leader behaviors	task-focused		task	0.16
Gard, Lindströ, & Dallner, 2002	individual	205	leader behaviors	mixed		generic	0.44
Gard, Lindströ, & Dallner, 2002	individual	205	leader behaviors	mixed		generic	0.43
Gard, Lindströ, & Dallner, 2002	individual	205	leader behaviors	mixed		generic	0.45
Gilbert & Tang, 1998	individual	83	leader behaviors	task-focused		social	0.28
Bass, Jung, Avolio, & Berson, 2003	team	72	leader behaviors	mixed		task	0.48
Bass, Jung, Avolio, & Berson, 2003	team	72	leader behaviors	social-focused		task	0.46
Bass, Jung, Avolio, & Berson, 2003	team	72	leader behaviors	social-focused		task	0.43
Bass, Jung, Avolio, & Berson, 2003	team	72	leader behaviors	mixed		task	0.55
Bass, Jung, Avolio, & Berson, 2003	team	72	leader behaviors	social-focused		task	0.55
Bass, Jung, Avolio, & Berson, 2003	team	72	leader behaviors	social-focused		task	0.43
Hoyt & Blascovich, 2003	team	72	leader behaviors	task-focused		social	0.43
Hoyt & Blascovich, 2003	team	72	leader behaviors	task-focused		social	0.34
Hoyt & Blascovich, 2003	team	72	leader behaviors	task-focused		social	0.32
Hoyt & Blascovich, 2003	team	72	leader behaviors	social-focused		social	0.52
Hoyt & Blascovich, 2003	team	72	leader behaviors	task-focused		social	0.29
Hoyt & Blascovich, 2003	team	72	leader behaviors	task-focused		social	0.04
Huang, Kahai, & Jestice, 2010	team	95	leader behaviors	task-focused		task	0.52
Huang, Kahai, & Jestice, 2010	team	95	leader behaviors	mixed		task	0.49
Joo, Song., Lim, & Yoon, 2012	individual	228	leader behaviors	task-focused		generic	0.51
Jung & Sosik, 2002	team	47	leader behaviors	mixed		generic	0.68
Kammeyer-Mueller, & Wanberg, 2003	individual	589	leader behaviors	task-focused		social	0.19
Kruger, Botman, & Goodenow, 1991	individual	78	leader behaviors	mixed		generic	0.40
Kruger, Botman, & Goodenow, 1991	individual	78	leader behaviors	mixed		generic	0.38
Kruger, Botman, & Goodenow, 1991	individual	78	leader behaviors	mixed		generic	0.28
Liu, Liu, Kwan, & Mao, 2009	individual	512	leader behaviors	mixed		generic	0.39

Mael & Alderks, 1993	individual	1012	leader behaviors	mixed		generic	0.39
Mael & Alderks, 1993	individual	1012	leader behaviors	mixed		generic	0.35
Mannheim & Halamish, 2008	team	66	leader behaviors	mixed		generic	-0.05
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.29
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.31
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.13
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.40
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	social-focused		generic	0.40
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.29
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.45
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	leader behaviors	task-focused		generic	0.02
Mebane & Galassi, 2003	individual	68	leader behaviors	task-focused		social	0.45
Mebane & Galassi, 2003	individual	68	leader behaviors	social-focused		social	0.50
Mesmer-Magnus & Glew, 2012	individual	194	leader behaviors	social-focused		generic	0.46
Podsakoff, MacKenzie, & Ahearne, 1997	team	71	leader behaviors	task-focused		generic	0.53
Podsakoff & Todor, 1985	individual	827	leader behaviors	task-focused		social	0.30
Podsakoff & Todor, 1985	individual	827	leader behaviors	task-focused		social	0.18
Podsakoff & Todor, 1985	individual	827	leader behaviors	task-focused		social	0.05
Podsakoff & Todor, 1985	individual	827	leader behaviors	task-focused		social	0.28
Putti, 1985	individual	80	leader behaviors	task-focused		generic	0.51
Putti, 1985	individual	80	leader behaviors	social-focused		generic	0.59

Raes, Decuyper, Lismont, Van den Bossche, Kyndt, Demeyere, et al., 2013	team	28	leader behaviors	mixed		social	0.31
Raes, Decuyper, Lismont, Van den Bossche, Kyndt, Demeyere, et al., 2013	team	28	leader behaviors	task-focused		social	-0.30
Sanders & Schyns, 2006	team	35	leader behaviors	mixed		social	0.30
Sanders & Schyns, 2006	team	35	leader behaviors	task-focused		social	0.17
Sanders & Schyns, 2006	team	35	leader behaviors	task-focused		social	0.22
Schminke, Wells, Peyrefitte, & Sebora, 2002	individual	150	leader behaviors	mixed		social	0.30
Sheridan, Vredenburgh, & Abelson, 1984	individual	372	leader behaviors	task-focused		generic	0.23
Sheridan, Vredenburgh, & Abelson, 1984	individual	372	leader behaviors	task-focused		generic	0.14
Sheridan, Vredenburgh, & Abelson, 1984	individual	372	leader behaviors	task-focused		generic	-0.29
Sheridan, Vredenburgh, & Abelson, 1984	individual	372	leader behaviors	task-focused		generic	0.12
Sheridan, Vredenburgh, & Abelson, 1984	individual	372	leader behaviors	task-focused		generic	0.31
Sheridan, Vredenburgh, & Abelson, 1984	individual	372	leader behaviors	social-focused		generic	0.29
Sheridan, Vredenburgh, & Abelson, 1984	individual	174	leader behaviors	task-focused		generic	0.24
Sheridan, Vredenburgh, & Abelson, 1984	individual	174	leader behaviors	task-focused		generic	0.17
Sheridan, Vredenburgh, & Abelson, 1984	individual	174	leader behaviors	task-focused		generic	-0.24
Sheridan, Vredenburgh, & Abelson, 1984	individual	174	leader behaviors	task-focused		generic	0.10
Sheridan, Vredenburgh, & Abelson, 1984	individual	174	leader behaviors	task-focused		generic	0.34
Sheridan, Vredenburgh, & Abelson, 1984	individual	174	leader behaviors	social-focused		generic	0.34
Tabernero, Chambel, Curral, & Arana, 2009	team	24	leader behaviors	task-focused		social	0.06
Tabernero, Chambel, Curral, & Arana, 2009	team	24	leader behaviors	task-focused		social	0.22
Tabernero, Chambel, Curral, & Arana, 2009	team	24	leader behaviors	social-focused		social	0.51
Tabernero, Chambel, Curral, & Arana, 2009	team	24	leader behaviors	social-focused		social	0.45
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	leader behaviors	task-focused		generic	0.34
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	leader behaviors	mixed		generic	0.36
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	leader behaviors	social-focused		generic	0.37

Wang & Huang, 2009	team	51	leader behaviors	mixed		social	0.61
Wendt, Euwema, & van Emmerik, 2009	individual	29868	leader behaviors	task-focused		generic	0.19
Wendt, Euwema, & van Emmerik, 2009	individual	29868	leader behaviors	social-focused		generic	0.44
Wu, Neubert, & Yi, 2007	individual	469	leader behaviors	mixed		social	0.37
Ziegert, 2005	team	39	leader behaviors	social-focused		social	0.64
Ziegert, 2005	team	39	leader behaviors	task-focused		social	0.53
Ziegert, 2005	team	39	leader behaviors	mixed		social	0.77
Ziegert, 2005	team	39	leader behaviors	mixed		social	0.59
Bourque, 2013	individual	1824	leader behaviors	mixed		generic	0.48
Bourque, 2013	individual	1824	leader behaviors	mixed		generic	0.23
Gard, 2000	individual	640	leader behaviors	mixed		generic	0.44
Gilbert, 2000	individual	83	leader behaviors	mixed		social	0.28
Harris, 1989	team	39	leader behaviors	task-focused		generic	0.31
Hu, 2013	team	67	leader behaviors	task-focused		generic	0.66
Hu, 2013	team	67	leader behaviors	mixed		generic	0.68
Iverson & Roy, 1994	individual	246	leader behaviors	mixed		social	0.03
Jaussi & Dionne, 2003	team	74	leader behaviors	mixed		generic	0.33
Jaussi & Dionne, 2003	team	74	leader behaviors	task-focused		generic	0.23
Kahai, Huang, & Jestice, 2012	team	34	leader behaviors	mixed		generic	0.28
Kane, 1996	team	80	leader behaviors	task-focused		task	0.33
Kane, 1996	team	80	leader behaviors	task-focused		task	0.33
Kane, 1996	team	80	leader behaviors	task-focused		task	0.05
Kane, 1996	team	80	leader behaviors	task-focused		task	0.23
Kane, 1996	team	80	leader behaviors	task-focused		task	0.40
Kane, 1996	team	80	leader behaviors	task-focused		task	-0.07
Kane, 1996	team	80	leader behaviors	task-focused		task	-0.04
Klinsontorn, 2002	individual	216	leader behaviors	task-focused		task	0.42
Ko, 2005	team	75	leader behaviors	mixed		social	0.37
Nielsen, 2013	individual	594	leader behaviors	task-focused		social	0.21
Nielsen, 2013	individual	594	leader behaviors	mixed		social	0.40

Nielsen, 2013	individual	594	leader behaviors	mixed		social	0.34
Owens, 2012	individual	111	leader behaviors	social-focused		generic	0.38
Owens, 2012	individual	111	leader behaviors	task-focused		generic	0.11
Pollack, 1996	team	19	leader behaviors	task-focused		social	0.60
Sethi, Smith, & Park, 2001	individual	141	leader behaviors	task-focused		social	-0.08
Steinhardt, Dolbier, Gottlieb, & McCalister, 2003	individual	160	leader behaviors	task-focused		task	0.54
Tesluk, 1997	team	114	leader behaviors	task-focused		task	0.36
Tesluk, 1997	team	114	leader behaviors	task-focused		task	0.29
Tesluk, 1997	team	114	leader behaviors	task-focused		social	0.37
Tesluk, 1997	team	114	leader behaviors	task-focused		social	0.11
Wolfe & Box, 1988	team	36	leader behaviors	social-focused		social	0.71
Lewis, 2004	team	37	leader behaviors	mixed		generic	0.70
Pillai & Williams, 2004	individual	271	leader behaviors	mixed		social	0.42
Lee, Cheng, Yeung, & Lai, 2011	team	32	leader behaviors	task-focused		generic	0.07
Lee, Cheng, Yeung, & Lai, 2011	team	32	leader behaviors	task-focused		generic	0.48
Lee, Cheng, Yeung, & Lai, 2011	team	32	leader behaviors	task-focused		generic	0.02
Lee, Cheng, Yeung, & Lai, 2011	team	32	leader behaviors	social-focused		generic	0.07
Lee, Cheng, Yeung, & Lai, 2011	team	32	leader behaviors	mixed		generic	0.02
Michalisin, Karau, & Tangpong, 2007	team	80	leader behaviors	task-focused		task	0.32
Michalisin, Karau, & Tangpong, 2007	team	80	leader behaviors	social-focused		task	0.34
Schminke & Wells, 1999	individual	81	leader behaviors	task-focused		social	0.21
Schminke & Wells, 1999	individual	81	leader behaviors	social-focused		social	0.49
Stashevsky & Koslowsky, 2006	individual	252	leader behaviors	mixed		task	0.17
Vallejo, 2009	individual	410	leader behaviors	mixed		generic	0.47
Vallejo-Martos, 2011	individual	295	leader behaviors	mixed		generic	0.47
Cohen, Ben-Tura, & Vashdi, 2012	individual	223	leader behaviors	mixed		social	0.15
Mueller, Boyer, Price, & Iverson, 1994	individual	305	leader behaviors	task-focused		social	0.38
Weng, Su, & Lai, 2011	individual	228	leader behaviors	mixed		social	0.36
Demirer, Gures, & Akgul, 2010	individual	198	leader behaviors	task-focused		generic	0.14

Pillai & Williams, 2004	individual	271	leader behaviors	mixed		generic	0.42
Jansen, George, Van den Bosch, & Volberda, 2008	team	89	leader behaviors	mixed		social	0.16
Bartone, Johnsen, Eid, Brun, & Laberg, 2002	individual	162	leader effectiveness	mixed		generic	0.45
Chansler, Swamidass, & Cammann, 2003	individual	169	leader effectiveness	social-focused		generic	0.49
Cogliser & Schriesheim, 2000	team	65	leader effectiveness	task-focused		task	0.22
Cogliser & Schriesheim, 2000	team	65	leader effectiveness	task-focused		task	0.17
Cogliser & Schriesheim, 2000	team	65	leader effectiveness	task-focused		task	0.11
Cogliser & Schriesheim, 2000	team	65	leader effectiveness	task-focused		task	0.09
Cogliser & Schriesheim, 2000	team	65	leader effectiveness	task-focused		task	0.15
Frenkel & Sanders, 2007	individual	1210	leader effectiveness	task-focused		task	0.10
Hausknecht, Trevor, & Howard, 2009	team	75	leader effectiveness	task-focused		generic	0.37
Hoyt & Blascovich, 2003	team	72	leader effectiveness	mixed		social	0.66
Hoyt & Blascovich, 2003	team	72	leader effectiveness	mixed		social	0.47
Mael & Alderks, 1993	individual	1012	leader effectiveness	mixed		generic	0.60
Naumann, & Bennett, 2000	team	34	leader effectiveness	task-focused		social	0.53
Stanley, 2001	individual	50	leader effectiveness	task-focused		generic	0.20
Stanley, 2001	individual	50	leader effectiveness	mixed		generic	0.42
Stanley, 2001	individual	50	leader effectiveness	social-focused		generic	0.41
Stanley, 2001	individual	50	leader effectiveness	social-focused		generic	0.31
Stanley, 2001	individual	50	leader effectiveness	social-focused		generic	0.17
Stanley, 2001	individual	50	leader effectiveness	task-focused		generic	0.30
Stanley, 2001	individual	50	leader effectiveness	mixed		generic	0.30
Stanley, 2001	individual	50	leader effectiveness	social-focused		generic	0.27
Stanley, 2001	individual	50	leader effectiveness	social-focused		generic	0.22
Arincorayan, 2000	individual	1001	leader effectiveness	mixed		social	0.31
He, 2010	individual	136	leader effectiveness	mixed		task	0.41
Jacques, 1998	individual	556	leader effectiveness	mixed		social	0.39
Jacques, 1998	individual	556	leader effectiveness	task-focused		social	0.33
Kane, 1996	team	80	leader effectiveness	task-focused		task	0.63

Kane, 1996	team	80	leader effectiveness	task-focused		task	0.52
Kane, 1996	team	80	leader effectiveness	task-focused		task	0.51
Klein, 1996	individual	1676	leader effectiveness	task-focused		generic	0.46
Klein, 1996	individual	1676	leader effectiveness	mixed		generic	0.37
Klein, 1996	individual	1676	leader effectiveness	social-focused		generic	0.19
Ladebo, 2006	individual	296	leader effectiveness	social-focused		generic	0.48
Macintyre, 2002	individual	964	leader effectiveness	task-focused		generic	0.51
Macintyre, 2002	individual	936	leader effectiveness	task-focused		generic	0.56
Tung & Chang, 2011	team	79	leader effectiveness	task-focused		generic	0.37
Young, 2001	team	80	leader effectiveness	mixed		generic	0.56
Hansen, Morrow, & Batista, 2002	individual	46	leader effectiveness	social-focused		generic	0.65
Hansen, Morrow, & Batista, 2002	individual	614	leader effectiveness	social-focused		generic	0.35
Keller, 1986	team	32	leader effectiveness	task-focused		generic	0.10
Keller, 1986	team	32	leader effectiveness	task-focused		generic	0.18
Cogliser & Schriesheim, 2000	team	65	leader relations	mixed		task	0.21
Dekoekkoek, 2000	individual	194	leader relations	social-focused		social	0.35
Fonner, 2007	individual	120	leader relations	mixed		generic	0.63
Fonner, 2007	individual	105	leader relations	mixed		generic	0.37
George, 1999	individual	1154	leader relations	mixed		social	0.09
Hoyt & Blascovich, 2003	team	72	leader relations	mixed		social	0.29
Sanders & Schyns, 2006	individual	193	leader relations	task-focused		social	0.16
Wu, Neubert, & Yi, 2007	individual	469	leader relations	task-focused		social	0.33
Wu, Neubert, & Yi, 2007	individual	469	leader relations	social-focused		social	0.31
Abu Bakar & Sheer, 2013	individual	375	leader relations	mixed		generic	0.36
Abu Bakar & Sheer, 2013	individual	375	leader relations	mixed		generic	0.30
Hu, 2013	team	67	leader relations	mixed		generic	0.54
Hu, 2013	team	67	leader relations	mixed		generic	0.13
Hu, 2013	team	67	leader relations	mixed		generic	0.55
Jacques, 1998	individual	556	leader relations	task-focused		social	0.37
Keup, 2001	individual	429	leader relations	mixed		social	0.32

Ko, 2005	team	75	leader relations	mixed		social	0.46
Ko, 2011	individual	756	leader relations	social-focused		generic	-0.25
Ko, 2011	individual	995	leader relations	social-focused		generic	-0.17
Macintyre, 2002	individual	964	leader relations	mixed		generic	0.51
Macintyre, 2002	individual	936	leader relations	mixed		generic	0.55
Roulin, Mayor, & Bangerter, 2014	individual	1547	leader relations	mixed		social	0.22
Rousseau, Chiocchio, Boudrias,, Aubé, & Morin, 2008	individual	249	leader relations	mixed		social	0.32
Weng, Su, & Lai, 2011	individual	228	leader relations	mixed		social	0.33
Chou & Yeh, 2007	individual	103	leader traits	task-focused		group pride	0.22
Langfred, 1998b	team	61	leader traits	task-focused		generic	0.69
Stanley, 2001	individual	50	leader traits	social-focused		generic	0.41
Wang & Huang, 2009	team	51	leader traits	social-focused		social	0.24
Chang, Jia, Takeuchi, & Cai, 2014	individual	1059	leader traits	N/A		social	0.06
Lawrence & Wiswell, 1993	individual	65	leader traits	mixed		generic	0.10
Michalisin, Karau, & Tangpong, 2007	team	80	leader traits	N/A		task	-0.22
Gupta, Huang, & Niranjan, 2010	team	28	shared leadership	task-focused		generic	0.57
Gupta, Huang, & Niranjan, 2010	team	28	shared leadership	task-focused		generic	0.56
Langfred, 1998a	team	67	shared leadership	mixed		generic	0.22
Langfred, 1998a	team	61	shared leadership	mixed		generic	0.74
Mebane & Galassi, 2003	individual	68	shared leadership	mixed		social	0.21
Neubert, 1999	team	21	shared leadership	mixed		social	0.32
Ziegert, 2005	team	39	shared leadership	social-focused		social	0.63
Ziegert, 2005	team	39	shared leadership	task-focused		social	0.46
Ziegert, 2005	team	39	shared leadership	mixed		social	0.53
Ziegert, 2005	team	39	shared leadership	mixed		social	0.37
Ziegert, 2005	team	39	shared leadership	social-focused		social	0.11
Ziegert, 2005	team	39	shared leadership	task-focused		social	0.32
Ziegert, 2005	team	39	shared leadership	mixed		social	0.47
Ziegert, 2005	team	39	shared leadership	mixed		social	0.23

Ziegert, 2005	team	39	shared leadership	mixed		social	-0.20
Balthazard, Waldman, & Atwater, 2008	team	42	shared leadership	task-focused		social	0.49
Balthazard, Waldman, & Atwater, 2008	team	42	shared leadership	task-focused		social	0.38
Balthazard, Waldman, & Atwater, 2008	team	42	shared leadership	task-focused		social	0.25
Balthazard, Waldman, & Atwater, 2008	team	42	shared leadership	task-focused		social	-0.29
Wolfe & Box, 1988	team	36	shared leadership	mixed		social	0.15
Michalisin, Karau, & Tangpong, 2004	team	81	shared leadership	mixed		task	-0.15
Daspit, Tillman, Boyd, & Mckee, 2013	individual	142	shared leadership	task-focused		social	0.67
Foo, Sin, & Yiong, 2006	team	51	shared leadership	mixed		generic	0.04
Interventions							
McDowell, Herdman, & Aaron, 2011	individual	88	facilitator or tool			generic	0.80
Schwarz & Schwarz, 2007	individual	102	facilitator or tool			generic	0.84
Schwarz & Schwarz, 2007	individual	102	facilitator or tool			generic	0.43
Schwarz & Schwarz, 2007	individual	102	facilitator or tool			generic	0.79
Schwarz & Schwarz, 2007	individual	102	facilitator or tool			generic	0.62
Schwarz & Schwarz, 2007	individual	102	facilitator or tool			generic	0.92
Anson & Bostrom, 1995	individual	319	facilitator or tool			social	0.23
Dennis & Garfield, 2003	individual	20	facilitator or tool			generic	1.03
Venkatesh & Windeler, 2012	team	44	facilitator or tool			social	0.75
Venkatesh & Windeler, 2012	team	47	facilitator or tool			social	0.41
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			task	-0.16
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			task	0.34
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			task	0.16
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			task	0.48
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			social	-0.21

Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			social	0.83
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			social	0.00
Caruso, Biancosino, Borghi, Marmai, Kerr, & Grassi, 2013	individual	12	task training			social	0.88
Verhoef, Toussaint, Putter, Zwetsloot-Schonk, & Vlieland, 2008	individual	14	task training			generic	0.98
Verhoef, Toussaint, Putter, Zwetsloot-Schonk, & Vlieland, 2008	individual	10	task training			generic	-1.46
Wallen, Mitchell, Melnyk, Fineout-Overholt, Miller-Davis, Yates, & Hastings, 2010	individual	143	task training			task	0.25
Zahrly & Tosi, 1989	individual	64	task training			social	-0.68
Clinton, Lunney, & Hart, 1997	individual	25	task training			generic	1.70
Clinton, Lunney, & Hart, 1997	individual	25	task training			generic	1.17
Griffin & Pennscott, 1991	individual	5	task training			generic	0.47
Griffin & Pennscott, 1991	individual	8	task training			generic	0.62
Klipfel, Gettman, Johnson, Olson, Derscheid, Maxson, et al., 2011	individual	29	task training			task	
Klipfel, Gettman, Johnson, Olson, Derscheid, Maxson, et al., 2011	individual	24	task training			task	0.47
Klipfel, Gettman, Johnson, Olson, Derscheid, Maxson, et al., 2011	individual	24	task training			group pride	0.33
Klipfel, Gettman, Johnson, Olson, Derscheid, Maxson, et al., 2011	individual	24	task training			social	0.52
Anderson, Hesford, & Young, 2002	team	18	task training			social	0.70
Arndt, Karande, & Harkins, 2012	individual	118	task training			social	0.81
Arndt, Karande, & Harkins, 2012	individual	89	task training			social	1.31
Anderson, 2010	individual	29	team building			task	0.67
Anderson, 2010	individual	29	team building			task	1.18

Anderson, 2010	individual	29	team building			social	0.95
Anderson, 2010	individual	29	team building			social	0.54
Anderson, 2010	individual	27	team building			task	0.91
Anderson, 2010	individual	27	team building			task	1.56
Anderson, 2010	individual	27	team building			social	0.83
Anderson, 2010	individual	27	team building			social	0.49
Bartone, Johnsen, Eid, Brun, & Laberg, 2002	individual	162	team building			generic	1.71
Bednar & Battersby, 1976	individual	48	team building			generic	0.68
Birx, LaSala, & Wagstaff, 2011	individual	29	team building			social	0.37
Weldon, Blair, & Huebsch, 2000	individual	120	team building			generic	0.91
Kocsis, 1997	team	85	team building			social	2.21
Elias, 1985	team	36	team building			generic	0.74
Elias, 1985	team	36	team building			generic	0.94
Johnston, 2007	individual	129	team building			task	0.80
Bailey & Thompson, 2000	individual	80	team training			generic	0.69
Crews & Melnick, 1976	individual	383	team training			generic	0.19
Elliot, Goldberg, Duncan, Kuehl, Moe, Breger, et al., 2004	individual	12	team training			generic	0.86
Beranek & Martz, 2005	individual	68	team training			social	0.54
Beranek & Martz, 2005	individual	68	team training			social	1.13
Tjosvold, Chen, Huang, & Xu, 2014	team	60	team training			social	0.59
Situational Variables							
Beehr, 1976	individual	587	challenge/demands			generic	0.12
Blair, 1997	team	16	challenge/demands			generic	-0.27
Cogliser & Schriesheim, 2000	team	65	challenge/demands			task	-0.09
Crespell, 2007	individual	198	challenge/demands			generic	0.78
Crespell, 2007	individual	221	challenge/demands			generic	0.58
Dekoekkoek, 2000	individual	194	challenge/demands			social	-0.39
Dekoekkoek, 2000	individual	194	challenge/demands			social	-0.35
Dekoekkoek, 2000	individual	194	challenge/demands			social	-0.20

Dekoekkoek, 2000	individual	194	challenge/demands			social	0.12
Dekoekkoek, 2000	individual	194	challenge/demands			social	0.22
Gard, Lindströ, & Dallner, 2002	individual	205	challenge/demands			generic	-0.38
Gard, Lindströ, & Dallner, 2002	individual	205	challenge/demands			generic	-0.18
Kammeyer-Mueller, & Wanberg, 2003	individual	589	challenge/demands			social	-0.40
Man & Lam, 2003	team	381	challenge/demands			task	0.25
Michaels & Dixon, 1994	individual	215	challenge/demands			generic	-0.28
Michaels & Dixon, 1994	individual	215	challenge/demands			generic	-0.18
Michaels & Dixon, 1994	individual	1005	challenge/demands			generic	-0.42
Michaels & Dixon, 1994	individual	1005	challenge/demands			generic	-0.22
Mulvey & Klein, 1998	team	59	challenge/demands			social	0.43
O'Reilly & Caldwell, 1985	individual	79	challenge/demands			generic	0.09
Prien, 2001	individual	497	challenge/demands			social	-0.11
Prien, 2001	individual	497	challenge/demands			social	-0.21
Prien, 2001	individual	497	challenge/demands			task	-0.47
Prien, 2001	individual	497	challenge/demands			task	-0.02
Westman, Bakker, Roziner, & Sonnentag, 2011	team	100	challenge/demands			task	0.37
Whitney, 1994	team	36	challenge/demands			social	-0.08
Whitney, 1994	team	36	challenge/demands			social	-0.02
Wong, 2003	team	74	challenge/demands			social	0.08
Zaccaro, 1991	individual	333	challenge/demands			task	-0.51
Zaccaro, 1991	individual	333	challenge/demands			social	-0.33
Zahrly & Tosi, 1989	individual	64	challenge/demands			social	-0.19
Zahrly & Tosi, 1989	individual	64	challenge/demands			social	-0.07
Zahrly & Tosi, 1989	individual	64	challenge/demands			social	0.53
Ziegert, 2005	team	39	challenge/demands			social	-0.32
Chang, Jia, Takeuchi, & Cai, 2014	individual	1059	challenge/demands			social	0.07
Iverson & Roy, 1994	individual	246	challenge/demands			social	0.16
Kammeyer-Mueller, 2002	individual	589	challenge/demands			social	-0.48

Keup, 2001	individual	429	challenge/demands			social	0.33
Kickul, 2000	team	61	challenge/demands			social	-0.07
Macintyre, 2002	individual	964	challenge/demands			generic	-0.51
Macintyre, 2002	individual	964	challenge/demands			generic	-0.17
Macintyre, 2002	individual	936	challenge/demands			generic	-0.50
Macintyre, 2002	individual	936	challenge/demands			generic	-0.14
Patrick, 1997	team	57	challenge/demands			task	0.33
Patrick, 1997	team	57	challenge/demands			social	0.23
Rosenberg, 1995	individual	100	challenge/demands			social	0.24
Rosenberg, 1995	team	70	challenge/demands			social	0.49
Anderson, Hesford, & Young, 2002	team	18	challenge/demands			social	0.42
McComb, Green, & Compton, 2007	team	60	challenge/demands			social	0.39
McComb, Green, & Compton, 2007	team	60	challenge/demands			social	0.09
Michalisin, Karau, & Tangpong, 2007	team	80	challenge/demands			task	-0.18
Klein, & Mulvey, 1995	team	52	challenge/demands			generic	0.43
Klein, & Mulvey, 1995	team	89	challenge/demands			generic	0.32
Kowtha, 2008	individual	135	challenge/demands			social	-0.35
Mueller, Boyer, Price, & Iverson, 1994	individual	305	challenge/demands			social	0.25
Zika-Viktorsson, Hovmark, & Nordqvist, 2003	individual	98	challenge/demands			group pride	-0.05
Barsness, 1997	team	138	challenge/demands			generic	-0.14
Jansen, George, Van den Bosch, & Volberda, 2008	team	89	challenge/demands			social	0.27
Jansen, Tempelaar, van den Bosch, & Volberda, 2009	individual	230	challenge/demands			social	0.03
Lin & Shih, 2008	team	201	challenge/demands			social	-0.11
Huang, Kahai, & Jestice, 2010	team	95	media richness			task	0.59
Kring, 2005	team	32	media richness			task	-0.12
Kring, 2005	team	32	media richness			task	-0.22
Kring, 2005	team	32	media richness			task	-0.02

Kring, 2005	team	32	media richness			task	-0.15
Kring, 2005	team	32	media richness			social	-0.01
Kring, 2005	team	32	media richness			social	-0.14
Kring, 2005	team	32	media richness			social	-0.30
Kring, 2005	team	32	media richness			social	0.01
Straus, 1997	team	72	media richness			social	0.37
Van der Kleij, Paashuis, & Schraagen, 2005	team	22	media richness			generic	0.34
Bodiya, 2011	individual	165	media richness			generic	0.33
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	media richness			social	0.26
Bradley, Baur, Banford, & Postlethwaite, 2013	team	107	media richness			social	0.12
Kahai, Huang, & Jestice, 2012	team	34	media richness			generic	-0.09
Kahai, Huang, & Jestice, 2012	team	34	media richness			generic	0.68
Lea, Spears, & de Groot, 2001	individual	50	media richness			generic	0.02
Warkentin, Sayeed, & Hightower, 1999	team	24	media richness			generic	0.49
Bryant, Albring, & Murthy, 2009	individual	89	media richness			task	0.15
Bryant, Albring, & Murthy, 2009	individual	89	media richness			social	0.01
Hoegl & Proserpio, 2004	team	145	media richness			generic	0.26
Pazos & Beruvides 2011	team	24	media richness			social	0.53
Williams & Castro, 2010	team	47	media richness			social	-0.56
Workman, 2007	individual	848	media richness			task	0.53
Xue, Sankar, & Mbarika, 2004	individual	61	media richness			generic	0.47
Yoo & Alavi, 2001	team	21	media richness			social	-0.27
Knight, Pearson, & Hunsinger, 2008	individual	362	media richness			generic	0.16
Knight, Pearson, & Hunsinger, 2008	individual	362	media richness			generic	0.27
Crespell, 2007	individual	198	resources			generic	0.73
Crespell, 2007	individual	221	resources			generic	0.58
Ensley, Pearson, & Sardeshmukh, 2007	team	200	resources			group pride	0.18
Ensley, Pearson, & Sardeshmukh, 2007	team	200	resources			group pride	-0.08

Ensley, Pearson, & Sardeshmukh, 2007	team	200	resources			group pride	0.06
Mesmer-Magnus & Glew, 2012	individual	194	resources			generic	0.50
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	resources			generic	0.38
Tourangeau, Cranley, Laschinger, & Pachis, 2010	individual	675	resources			generic	0.36
Gilbert, 2000	individual	83	resources			social	0.28
Nielsen, 2013	individual	594	resources			social	0.32
Keller, 1986	team	32	resources			generic	0.27
McComb, Green, & Compton, 2007	team	60	resources			social	0.24
Nakata & Im, 2010	team	206	resources			social	0.34
Woerkom & Sanders, 2010	individual	1354	resources			social	0.08
Lin & Shih, 2008	team	201	resources			social	0.14
Anderson, 1975	team	40	task autonomy			social	-0.13
Anderson, 1975	team	40	task autonomy			generic	-0.13
Barrick, Stewart, Neubert, & Mount, 1998	team	51	task autonomy			social	0.58
Cogliser & Schriesheim, 2000	team	65	task autonomy			task	0.20
Crespell, 2007	individual	198	task autonomy			generic	0.77
Crespell, 2007	individual	221	task autonomy			generic	0.34
Dekoekkoek, 2000	individual	194	task autonomy			social	0.28
Gard, Lindströ, & Dallner, 2002	individual	205	task autonomy			generic	0.49
Gard, Lindströ, & Dallner, 2002	individual	205	task autonomy			generic	0.46
Jung & Sosik, 2002	team	47	task autonomy			generic	0.51
Langfred, 1998a	team	67	task autonomy			generic	-0.32
Langfred, 1998a	team	67	task autonomy			generic	0.19
Langfred, 1998a	team	61	task autonomy			generic	-0.36
Langfred, 1998a	team	61	task autonomy			generic	0.09
Langfred, 1998a	team	25	task autonomy			generic	0.32
Langfred, 1998a	team	25	task autonomy			generic	0.33
Man & Lam, 2003	team	381	task autonomy			task	0.21

Molleman, 2005	team	99	task autonomy			generic	0.10
O'Reilly & Caldwell, 1985	individual	79	task autonomy			generic	-0.04
Ziegert, 2005	team	39	task autonomy			social	0.55
Bodiya, 2011	individual	165	task autonomy			generic	0.33
Gard, 2000	individual	640	task autonomy			generic	0.49
Iverson & Roy, 1994	individual	246	task autonomy			social	0.29
Owens, 2012	individual	111	task autonomy			generic	-0.33
Rosenberg, 1995	team	70	task autonomy			social	0.13
Roulin, Mayor, & Bangerter, 2014	individual	1547	task autonomy			social	0.26
Roulin, Mayor, & Bangerter, 2014	individual	1547	task autonomy			social	0.36
Tesluk, 1997	team	114	task autonomy			task	0.32
Tesluk, 1997	team	114	task autonomy			task	0.18
Tesluk, 1997	team	114	task autonomy			task	0.04
Tesluk, 1997	team	114	task autonomy			social	0.30
Tesluk, 1997	team	114	task autonomy			social	0.17
Tesluk, 1997	team	114	task autonomy			social	0.06
Acuña, Gómez, & Juristo, 2009	team	35	task autonomy			generic	0.33
Nakata & Im, 2010	team	206	task autonomy			social	0.19
Nakata & Im, 2010	team	206	task autonomy			social	0.39
Seers, Petty, & Cashman, 1995	individual	103	task autonomy			social	0.00
Seers, Petty, & Cashman, 1995	individual	103	task autonomy			social	0.09
Williams & Castro, 2010	team	47	task autonomy			social	-0.01
Woerkom & Sanders, 2010	individual	1354	task autonomy			social	0.01
Mueller, Boyer, Price, & Iverson, 1994	individual	305	task autonomy			social	0.44
Rico, Molleman, Sánchez-Manzanares, & Van der Vegt, 2007	team	52	task autonomy			social	0.11
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	task autonomy			social	0.66
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	task autonomy			social	0.32
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	task autonomy			social	0.53
Mebane & Galassi, 2003	individual	68	task importance			social	0.51

O'Reilly & Caldwell, 1985	individual	79	task importance			generic	0.10
Rapp, 2010	individual	113	task importance			social	0.51
Zaccaro, Gualtieri, & Minionis, 1995	team	46	task importance			task	0.52
Heiney, 1999	team	80	task importance			task	0.05
Craig & Kelly, 1999	team	61	task importance			task	0.29
Anderson, Hesford, & Young, 2002	team	18	task importance			social	0.70
Nakata & Im, 2010	team	206	task importance			social	0.15
Zaccaro & Lowe, 1988	individual	158	task importance			task	0.22
Bailey, 2007	team	28	task interdependence			task	0.06
Bailey, 2007	team	28	task interdependence			task	0.09
Bailey, 2007	team	28	task interdependence			social	0.11
Bailey, 2007	team	28	task interdependence			social	0.04
Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	task interdependence			generic	0.34
Carless & de Paola, 2000	individual	120	task interdependence			task	0.33
Carless & de Paola, 2000	individual	120	task interdependence			social	0.13
Carless & de Paola, 2000	individual	120	task interdependence			group pride	-0.03
Ferguson & Barry, 2011	team	40	task interdependence			task	-0.01
Frenkel & Sanders, 2007	individual	1210	task interdependence			task	-0.02
McMurray, Islam, Sarros, & Pirola-Merlo, 2012	individual	43	task interdependence			generic	0.41
Mebane & Galassi, 2003	individual	68	task interdependence			social	0.14
Mebane & Galassi, 2003	individual	68	task interdependence			social	0.24
Mebane & Galassi, 2003	individual	68	task interdependence			social	0.16
Mebane & Galassi, 2003	individual	68	task interdependence			social	0.19
Philo, 2005	team	150	task interdependence			task	0.08
Philo, 2005	team	150	task interdependence			task	0.08
Philo, 2005	team	150	task interdependence			task	0.10
Philo, 2005	team	150	task interdependence			task	0.16
Philo, 2005	team	150	task interdependence			task	0.06

Philo, 2005	team	150	task interdependence				0.20
Sanders & Schyns, 2006	individual	193	task interdependence			social	0.24
Stewart, Courtright, & Barrick, 2012	team	45	task interdependence			generic	0.25
Stewart, Courtright, & Barrick, 2012	team	45	task interdependence			generic	0.31
Wei & Wu, 2013	team	118	task interdependence			generic	0.42
Wong, 2003	team	74	task interdependence			social	0.12
Bodiya, 2011	individual	165	task interdependence			generic	0.30
Chen, Tang, & Wang, 2009	team	53	task interdependence			social	0.69
Chen, Tang, & Wang, 2009	team	53	task interdependence			social	0.54
Halfhill, 2001	team	40	task interdependence			social	0.17
Rosenberg, 1995	individual	100	task interdependence			social	0.27
Rosenberg, 1995	team	70	task interdependence			social	0.39
Acuña, Gómez, & Juristo, 2009	team	35	task interdependence			generic	0.42
Anderson, 2005	individual	172	task interdependence			generic	0.42
Bryant, Albring, & Murthy, 2009	individual	89	task interdependence			task	0.09
Bryant, Albring, & Murthy, 2009	individual	89	task interdependence			social	0.11
Shinh & Choi, 2010	team	43	task interdependence			social	0.07
Wood, Michaelides, & Thomson, 2013	team	40	task interdependence			social	0.32
Wood, Michaelides, & Thomson, 2013	team	40	task interdependence			group pride	0.08
Stalmeijer, Gijselaers, Wolfhagen, Harendza, & Scherpbier, 2007	team	21	task interdependence			task	0.43
Tjosvold, Chen, Huang, & Xu, 2014	team	60	task interdependence			social	0.55
Tjosvold, Chen, Huang, & Xu, 2014	team	60	task interdependence			social	0.59
Tjosvold, Chen, Huang, & Xu, 2014	team	60	task interdependence			social	0.39
Tjosvold, Chen, Huang, & Xu, 2014	team	60	task interdependence			social	0.59
Harrison, Price, Gavin, & Florey, 2002	team	144	task interdependence			social	-0.07
Jansen, George, Van den Bosch, & Volberda, 2008	team	89	task interdependence			social	0.38
Jansen, Tempelaar, van den Bosch, & Volberda, 2009	individual	230	task interdependence			social	0.12

Bailey, 2007	team	28	team size			task	0.06
Bailey, 2007	team	28	team size			task	0.05
Bailey, 2007	team	28	team size			social	0.23
Bailey, 2007	team	28	team size			social	0.17
Barrick, Bradley, Kristof-Brown, & Colbert, 2007	team	94	team size			generic	0.03
Barrick, Stewart, Neubert, & Mount, 1998	team	51	team size			social	-0.07
Brahm & Kunze, 2012	team	50	team size			task	0.46
Cogliser & Schriesheim, 2000	team	65	team size			task	-0.03
Cohen, Ben-Tura, & Vashdi, 2012	individual	223	team size			social	0.22
Dubin, 2012	team	735	team size			generic	-0.19
Dubin, 2012	team	2395	team size			generic	-0.15
Dubin, 2012	team	3792	team size			generic	-0.12
Ferguson & Barry, 2011	team	40	team size			task	0.01
Frenkel & Sanders, 2007	individual	1210	team size			task	-0.12
Gupta, Huang, & Niranjan, 2010	team	28	team size			generic	-0.29
Hausknecht, Trevor, & Howard, 2009	team	75	team size			generic	-0.15
Hirschfeld & Bernerth, 2008	team	110	team size			social	-0.02
Hirschfeld, Jordan, Feild, Giles, & Armenakis, 2005	team	92	team size			social	0.16
Huang, Kahai, & Jestice, 2010	team	95	team size			task	-0.13
Kayes, 2006	team	62	team size			social	-0.01
Keller, 2001	team	93	team size			social	-0.24
Langfred, 1998b	team	61	team size			generic	0.23
Langfred, 1998a	team	67	team size			generic	0.12
Langfred, 1998a	team	61	team size			generic	0.23
Langfred, 1998a	team	25	team size			generic	-0.17
Lee & Farh, 2004	team	45	team size			generic	0.22
Lin & Peng, 2010	team	62	team size			social	0.01
Mebane & Galassi, 2003	individual	68	team size			social	0.43

Neubert, 1999	team	21	team size			social	-0.34
Pillutla, Farh, Lee, & Lin, 2007	individual	257	team size			generic	-0.02
Pillutla, Farh, Lee, & Lin, 2007	individual	257	team size			generic	0.14
Sanders, 2004	team	8	team size			social	-0.27
Sanders, 2004	team	9	team size			social	-0.35
Stewart, Courtright, & Barrick, 2012	team	45	team size			generic	-0.01
Stewart, Fulmer, Barrick, & Hollenbeck, 2005	team	45	team size			social	0.11
Troth, Jordan, & Lawrence, 2012	individual	273	team size			generic	0.13
Van Woerkom & Sanders, 2010	team	126	team size			social	-0.14
Wei & Wu, 2013	team	118	team size			generic	0.04
Wong, 2003	team	74	team size			social	-0.33
Ziegert, 2005	team	39	team size			social	0.12
Erdheim, 2007	team	61	team size			social	0.09
Erdheim, 2007	team	61	team size			task	0.06
Hu, 2013	team	67	team size			generic	0.11
Iverson & Roy, 1994	individual	246	team size			social	0.44
Kahai, Huang, & Jestice, 2012	team	34	team size			generic	-0.17
Patrick, 1997	team	57	team size			task	0.02
Patrick, 1997	team	57	team size			social	-0.07
Schwarz & Schwarz, 2007	individual	102	team size			generic	-0.08
Young, 2001	team	80	team size			generic	-0.10
Harrison, Price, & Bell, 1998	team	71	team size			social	-0.12
Anderson, Hesford, & Young, 2002	team	18	team size			social	0.35
Dayan & Di Benedetto 2008	individual	117	team size			group pride	0.05
Ensley, Pearson, & Amason, 2002	team	70	team size			social	-0.17
Ensley, Pearson, & Amason, 2002	team	70	team size			group pride	0.10
Hoegl & Proserpio, 2004	team	145	team size			generic	-0.18
Keller, 1986	team	32	team size			generic	-0.29
Magni, Proserpio, Hoegl, & Provera, 2009	individual	138	team size			social	-0.12

McComb, Green, & Compton, 2007	team	60	team size			social	0.34
Michalisin, Karau, & Tangpong, 2004	team	81	team size			task	-0.14
Michalisin, Karau, & Tangpong, 2007	team	80	team size			task	-0.13
Shinh & Choi, 2010	team	43	team size			social	-0.16
Venkatesh & Windeler, 2012	team	44	team size			social	0.05
Venkatesh & Windeler, 2012	team	47	team size			social	0.01
Wang, Chen, Lin, & Hsu, 2010	team	109	team size			task	0.17
Williams, Duray, & Reddy, 2006	individual	104	team size			task	-0.22
Woerkom & Sanders, 2010	individual	1354	team size			social	-0.14
Workman, 2007	individual	848	team size			task	-0.09
Carlson, Carlson, Hunter, Vaughn, & George, 2013	individual	365	team size			social	-0.13
Cohen, Ben-Tura, & Vashdi, 2012	individual	223	team size			social	0.22
Daspit, Tillman, Boyd, & Mckee, 2013	individual	142	team size			social	-0.11
DeOrtentiis, Summers, Ammeter, Douglas, & Ferris, 2013	individual	84	team size			social	0.00
DeOrtentiis, Summers, Ammeter, Douglas, & Ferris, 2013	individual	84	team size			social	-0.20
Harrison, Price, Gavin, & Florey, 2002	team	144	team size			social	-0.02
Barsness, 1997	team	138	team size			generic	0.17
Foo, Sin, & Yiong, 2006	team	51	team size			generic	-0.20
Jansen, George, Van den Bosch, & Volberda, 2008	team	89	team size			social	-0.11
Jansen, Tempelaar, van den Bosch, & Volberda, 2009	individual	230	team size			social	-0.04
Smith, Smith, Olian, & Sims, 1994	team	53	team size			generic	0.17
Bailey, 2007	team	28	team tenure			task	-0.34
Bailey, 2007	team	28	team tenure			task	-0.47
Bailey, 2007	team	28	team tenure			social	-0.44
Bailey, 2007	team	28	team tenure			social	-0.45

Bailey, 2007	team	28	team tenure			social	-0.47
Bartone, Johnsen, Eid, Brun, & Laberg, 2002	individual	162	team tenure			generic	0.22
Burt, Sepie, & McFadden, 2008	individual	80	team tenure			social	0.19
Leana, 1985	team	52	team tenure			generic	0.18
Lowe, 1995	team	100	team tenure			generic	-0.22
Wong, 2003	team	74	team tenure			social	-0.14
Yip, Chow, Cheng, Cheuk, & McBride-Chang, 2007	individual	18	team tenure			social	0.76
Landman, 2005	team	55	team tenure			social	0.42
Landman, 2005	team	55	team tenure			task	0.44
Tesluk, 1997	team	114	team tenure			task	0.11
Tesluk, 1997	team	114	team tenure			social	0.05
Tung & Chang, 2011	team	79	team tenure			generic	0.07
Dineen, 2005	individual	582	team tenure			social	0.13
Keller, 1986	team	32	team tenure			generic	0.02
McComb, Green, & Compton, 2007	team	60	team tenure			social	0.19
Mennecke & Valacich, 1998	individual	256	team tenure			social	0.58
Shinh & Choi, 2010	team	43	team tenure			social	-0.14
Workman, 2007	individual	848	team tenure			task	0.14
Chang, 2011	individual	60	team tenure			generic	0.83
Barsness, 1997	team	138	team tenure			generic	0.17
Smith, Smith, Olian, & Sims, 1994	team	53	team tenure			generic	-0.43
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	team tenure			social	0.11
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	team tenure			social	0.23
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	team tenure			social	-0.21
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	team tenure			social	0.05
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	team tenure			social	-0.01
Van der Vegt, Bunderson, & Kuipers, 2010	team	47	team tenure			social	0.07

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Note: *Indicates that study was included in the meta-analysis.