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THE IMPACT OF LEADER-GROUP VALUE SIMILARITY AND ORGANIZATIONAL CULTURE ON GROUP PERFORMANCE

A Dissertation APPROVED FOR THE

DEPARTMENT OF PSYCHOLOGY

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Table of Contents

Title Page i
Signature Page ii
Copyright Page iii
Table of Contents iv
List of Tables v
List of Illustrations vi
Introduction 1
Method 57
Results 72
Discussion 84
References 93

List of Tables

Table 1: Percentage of Group sizes in each culture 89

Table 2: Values Definitions 90

Table 3: Summary of leader behavior and group process measures 91

Table 4: Difference Indices 92

Table 5: Descriptive statistics for similarity indices 93

Table 6: Descriptive statistics for leader characteristics, leadership behaviors, and group performance measures 94

Table 7: Correlations between difference indices and leader characteristics, leadership behaviors, and group performance measures 96

Table 8: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Originality of design 98

Table 9: Hierarchical moderated regression analysis for Culture, Perceived similarity, Initiating structure, and Leader characteristics predicting TMX 99

Table 10: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting TMX 100

Table 11: Hierarchical moderated regression analysis for Culture, Perceived similarity, Initiating structure, and Leader characteristics predicting Planning adaptability 101

Table 14: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Cohesion: Group Task Integration 104

Table 15: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Cohesion: Group Social Integration 105

Table 18: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Initiating structure, and Leader characteristics predicting Quality of construction. 108

Table 19: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Quality of construction. 109

Table 20: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, initiating structure, and Leader characteristics predicting Originality of design 110

Table 21: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Originality of design 111

Table 22: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, initiating structure, and Leader characteristics predicting Structural integrity 112

Table 23: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Initiating structure, and Leader characteristics predicting Interactional justice. 113

Table 24: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Interactional justice. 114

Table 25: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting TMX. 115

Table 27: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting planning adaptability. 117

Table 28: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Individual attraction to the task 118

Table 29: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction. 119

Table 30: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Group Task Integration. 120

Table 31: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Group Social Integration. 121

Table 32: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Total Cohesion. 122

Table 33: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Quality of construction. 123

Table 34: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Originality of design 124

Table 35: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Structural integrity 125

Table 36: Hierarchical moderated regression analysis for Culture, Squared differences, Initiating structure, and Leader characteristics predicting Planning adaptability 126

Table 37: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Individual Attraction to Task 127

Table 38: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction 128

Table 39: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Group Task Integration 129

Table 40: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Group Social Integration 130

Table 41: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Total cohesion. 131

Table 42: Hierarchical moderated regression analysis for Culture, Squared differences based on Prosocial Values, Consideration, and Leader characteristics predicting Originality of design 132

Table 44: Hierarchical moderated regression analysis for Culture, Squared differences based on Individualistic Values, Consideration, and Leader characteristics predicting Originality of design 134

Table 45: Hierarchical moderated regression analysis for Culture, Squared differences based on Individualistic Values, Initiating structure, and Leader characteristics predicting Structural integrity 135

Table 46: Hierarchical moderated regression analysis for Culture, Squared differences based on Individualistic Values, Initiating structure, and Leader characteristics predicting Planning adaptability. 136

Table 47: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important and unimportant values, Consideration, and Leader characteristics predicting Originality of design. 137

Table 48: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important and unimportant values, Consideration, and Leader characteristics predicting Structural integrity 138

Table 49: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Consideration, and Leader characteristics predicting Quality of construction. 139

Table 50: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Consideration, and Leader characteristics predicting Originality of design 140

Table 51: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Initiating structure, and Leader characteristics predicting Structural integrity 141

Table 52: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Consideration, and Leader characteristics predicting Structural integrity 142

Table 53: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' unimportant values, Consideration, and Leader characteristics predicting Quality of construction. 143

Table 54: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' prosocial values, Consideration, and Leader characteristics predicting Originality of design. 144

Table 55: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' prosocial values, Consideration, and Leader characteristics predicting Structural integrity. 145

Table 56: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting TMX. 146

Table 57: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Planning adaptability. 147

Table 58: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Depth of planning. 148

Table 59: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Total planning performance. 149

Table 60: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Cohesion: Group Task Integration 150

Table 61: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Consideration, and Leader characteristics predicting Quality of construction. 151

Table 62: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Consideration, and Leader characteristics predicting Originality of design. 152

Table 63: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Consideration, and Leader characteristics predicting Structural integrity. 153

Table 64: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Initiating structure, and Leader characteristics predicting Planning adaptability. 154

Table 65: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Initiating structure, and Leader characteristics predicting Total planning performance. 155

Table 66: Hierarchical moderated regression analysis for Culture, Differences referenced to groups' unimportant values, Initiating structure, and Leader characteristics predicting TMX. 156

Table 67: Hierarchical moderated regression analysis for Culture, Differences referenced to groups' unimportant values, Consideration, and Leader characteristics predicting Cohesion: Individual Attraction to Task 157

Table 68: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Consideration, and Leader characteristics predicting Quality of construction. 158

Table 69: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Consideration, and Leader characteristics predicting Originality of design 159

Table 70: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Initiating structure, and Leader characteristics predicting TMX 160

Table 71: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Initiating structure, and Leader characteristics predicting Planning adaptability 161

Table 72: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Consideration, and Leader characteristics predicting Originality of design 162

Table 73: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Interactional justice. 163

Table 74: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Depth of planning. 164

Table 75: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Cohesion: Individual Attraction to Task. 165

Table 76: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction 166

Table 77: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Cohesion: Group Social Integration 167

Table 78: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Total cohesion. 168

Table of Figures

Figure 1: Sample scenario item from Values Measure. *169*
Figure 2: Instructions for rating group task for quality of construction *170*
Figure 3: Instructions for rating group task for originality of design *172*
Figure 4: Instructions for rating Structural integrity *173*

The Impact of Leader-Group Similarity and Organizational Culture on Followers' Performance

Leaders often have a large impact on organizational performance, both at the individual and the group level. Leadership behavior has been shown to be positively related to job performance, satisfaction with supervision, overall satisfaction, commitment and negatively related to felt stress, role conflict, role clarity, and turnover intentions (Keller, 1992; Kirkpatrick & Locke, 1996; Gerstner & Day, 1997; Tanner, Dunn, & Chonko, 1993). The leaders' behaviors can increase the financial performance of the leader's group (Barling, Weber, & Kelloway, 1996), as well as the productivity of work groups (Shipper & Wilson, 1991). Effective leadership has also been associated with the achievement of targeted goals for the year (Howell & Avolio, 1993). Leaders can motivate their followers to cooperate in social dilemmas (De Cremer & Knippenberg, 2002), adapt to changing situations (Marks, Zaccaro, & Mathieu, 2000), make more accurate decisions (LePine, Hollenbeck, Ilgen, & Hedlund, 1997), and increase prosocial behavior and decrease a group's voluntary turnover rate (George & Bettenhausen, 1990).

Given that leadership is important, little research has focused on why followers follow their leaders. Leader-member exchange (LMX) theory posits that followers make decisions to follow leaders based on their liking for and trust of the leader (Dansereau, Graen, & Haga, 1975). Leaders differentiate among group members and develop a different type of relationship or exchange with each follower (e.g., Dansereau, Graen, & Haga, 1975; Graen & Scandura, 1987), based on the results of their interactions. High quality leader-member exchange relationships are characterized by reciprocated liking and by mutual exchanges that go beyond the minimum effort described by the employment contract. Higher

LMX relations between leaders and followers are distinguished by more open communication and trust. LMX relationships develop quickly and tend to remain stable over time (e.g., Liden, Wayne, & Stillwell, 1993).

Graen and Scandura's (1987) model of leader-member-exchange development hypothesized that these relationships develop in three phases. The first, role taking, occurs when as leaders offer a potential role to the follow, which the follower can either accept or deny as both parties are evaluating the other. During the second stage, role making, member performance and leader delegation exchanges begin to crystallize into stable, predictable relationships with high expectations for behaviors and positive affect from the other party. Successful role negotiation reduces experienced role conflict and stress (Quick, 1979). During the last stage, role routinization, LMX relationships become affect-laden. By offering defined roles, leaders provide direction, structure, and meaning; in return followers return positive affect, and provide opportunities to the leader to influence them (Zaccaro & Klimoski, 2001). Leaders provide more resources to followers with whom they have higher LMX (e.g., information, rewards, concern, opportunities, or support) in exchange for their performance, commitment, and support (Graen & Uhl-Bien, 1995; Sparrowe & Liden, 1997; Yukl, 2002).

A major problem with this theory is that it does not provide an explanation of mechanisms that delineate how a leader's different dyadic relationships affect overall group performance (Dansereau, Yammarino, & Markham, 1995; Mumford, Dansereau, & Yammarino, 2000; Yukl, 2002). Although other levels of analyses have been proposed for LMX (Graen & Uhl-Bien, 1995), few studies have attempted to look at LMX from anything other than the individual-level perspective (Sparrowe & Liden, 1997). There have also been

few studies that have examined how characteristics of the situation moderate the development of the exchange process (Green, Anderson, & Shivers, 1996; Yukl, 2002). The purpose of this study is to examine how LMX affects the performance of the group (task and process) and how the culture of the organization (mechanistic versus organic cultures) and other leadership behaviors (Initiating structure and Consideration) moderate the relationships between LMX and group performance.

Leadership requires positive interaction with followers.

Effective leadership depends on the interaction between leaders and followers (Mumford, Dansereau, & Yammarino, 2000). Theories explicitly focused on the dyadic relationship between leaders and followers (e.g., individualized leadership, leader-member exchange theory, social exchange theory, vertical-dyad linkage theory, and role theory) see this interaction as the basis for the impact of the leader on followers' performance and attitudes. Other theories agree with the emphasis on the leader-follower dyad for the foundation of leadership. Bass' theory of transformational leadership (1985) theorizes that leaders influence followers via negotiation, participation, and empowerment. Shamir, Zakay, Breinin, and Popper's theory of charismatic leadership (1998) also emphasizes this relationship as the basis of motivation for followers.

LMX has strong effects on several aspects of follower attitudes and performance. Followers in these relationships have more negotiating latitude than do followers with lower LMX with the same leader (Dansereau, Graen, & Haga, 1975; Dienesch & Liden, 1986; Graen & Uhl-Bien, 1995). Support has been found for the positive associations between LMX and overall job satisfaction (Liden, Sparrowe, & Wayne, 1997), perceptions of

procedural and distributive justice (Scandura, 1999), commitment to the organization, and perceptions of organizational support (Wayne, et al., 1997). Higher LMX has been found to be related to followers' increased innovative behaviors (Graen & Uhl-Bien, 1995; Scott, & Bruce, 1994). LMX is also related to speed of promotion and salary level (Scandura, 1999; Wakabayashi, Graen, Graen, & Graen, 1988). Followers with higher LMX also tend to have higher ratings of performance, but the impact of LMX on objective performance has been mixed (Gerstner & Day, 1997; Graen, Novak, & Sommerkamp, 1982; Wayne, Shore, and Liden, 1997; Wayne & Ferris, 1990; Wayne, Shore, Bommer, & Tetrick, 2002; Vecchio & Gobdel, 1984). The increase in subjective ratings may also be more related to organizational citizenship behaviors than in-role behavior. Sherony and Green (2002) have found evidence that followers with high LMX relationships tend to have better exchange relationships with coworkers when the coworkers also have high LMX relationships. Followers with higher LMX have displayed more organizational citizenship behaviors (OCBs) towards their coworkers (Deluga, 1994; Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Settoon, Bennett, & Liden, 1996; Wayne, Shore, & Liden, 1997; Wayne & Green, 1993), possibly as a way to return the support they receive, to gain more rewards, or to further strengthen their relationship to their leaders (Wayne & Green, 1993). These OCBs may be behind the increased performance ratings since they tend to increase performance ratings (Gerstner & Day, 1997). Thus, LMX could be related to the efficiency and cooperativeness of the group's interaction.

Mutual liking is seen as central to the formation of LMX. However research has predominantly focused on the liking of the follower by the leader. For example, while LMX is generally higher when followers show strong, reliable performance, liking of the follower

by the leader is also directly influential in predicting LMX (Dockery & Steiner, 1990) and may at times even substitute for performance (Dienesch & Liden, 1986; Liden, Wayne, & Stilwell, 1993). Liking of the leader by followers is also thought to be a precursor to, as well as a result of, LMX formation. Fiedler (1967) stated that the more a leader is liked by a follower, the more the influence the leader has with the follower. One very influential theory to explain liking, Byrne's attraction-similarity paradigm (1971), states that people will be attracted to others who are similar in attitude, personality, or other personal qualities. Lott and Lott's research in the instrumentally reinforcing properties of similarity (1961; 1974) demonstrate that people find similarity rewarding. Other researchers have found evidence that dissimilarity is perceived as unfavorable (e.g., Deluga, 1998, Kramer, 1991; Stephan & Stephan, 1985).

Effects of similarity on leader and group behavior and values

Leader-member similarity or perceived similarity has been found to be very influential in LMX development (e.g., Deluga, 1998; Graen & Uhl-Bien, 1995). Leader-member similarity has been linked in several studies to an increase in LMX, leading to increased performance ratings, positive expectations of performance and attitude, and leaders have been shown to use transformational leadership more for similar followers as opposed to dissimilar followers who are more likely to receive transactional leadership behaviors (need cites). Leaders prefer to give negotiating latitude to followers whom they recognize as being competent and trustworthy because they are a relatively lower risk to let these followers act out his or her needs without the need for closer supervision and so

leaders delegate more to followers who are more similar to themselves (Schriesheim, Neider, & Scandura, 1998).

Several potential reasons may explain why increased similarity is related to higher LMX (Wayne & Liden, 1995). Leaders and followers may perceive each other as more competent and having more potential when the other is similar. Similarity may serve to validate one's view of the world and self and consequently may be rewarding. Similarity could in addition lead one to perceive shared outcomes and create a willingness to help similar others due to an increase in trust (Dienesch & Liden, 1996). Similarity may create a common understanding and allow leaders and followers to develop accurate expectations and explanations about each others' behaviors, attitudes, and intention as well accurate understanding of the task, which in turn helps them to communicate and coordinate. . Similarities in demographics, attitudes, and values have been demonstrated to lead to a reduced amount of distortion in communication (Cheryl, Ravlin, & Meglino, 1996; DiSalvo & Larsen, 1987; McCroskey, Richmond, & Daly, 1975). When people are similar, they tend to have higher levels of trust and confidence in each other (Turban & Jones, 1988). People tend to be more comfortable with similar others and so are more likely to interact, leading to increased communication, feelings of familiarity, and further increased mutual attraction. Similarity with another may also allow prediction of the behaviors of the leader, making the decision to perform above the accepted minimum level of performance less risky since followers trust the leader to reward them at a later date.

Not all similarities between leaders and their followers lead to higher quality relationships in the same way. For example, demographic similarities between leaders and follower have shown mixed results in predicting relationship quality (Basu & Green, 1995;

Bauer & Green, 1996; Dose, 1999; Liden, Wayne, & Stilwell, 1993; Pelled & Xin, 2000; Tsui & O'Reilly, 1989). Often, perceived similarity is more related to LMX than actual measured similarity (e.g., Adkins & Russell, 1994, 1997; Dose, 1999; Murphy & Ensher, 1999, Pulakos & Wexley, 1983). Hamm (2000) theorizes that perceived similarity may be more predictive due to multiple ways to conceptualize the bases for judgments of similarity. She proposed that results would be more consistent for measured similarity when the way that researchers operationalize similarity captures more of the ways that people make similarity judgments.

Value similarity

Values are generalized evaluative standards and act as primary motivators leading to choices made in behavior. Values can be viewed as personal, genericized goals that influence attitudes, judgments, decision-making, and comparison processes across situations. Rokeach's research on values (Rokeach, 1972, 1973, 1979; Ball-Rokeach, Rokeach, & Grube, 1984) suggests that values are determinants of attitudes and behavior. Ball-Rokeach and Loges (1994) and Feather (1995) have shown that values provide standards for selecting and evaluating decision alternatives, when people are presented with ambiguous situations. Research on values show that values are often strongly predictive of behavior (Homer & Kahle, 1988; Connor, & Becker, 1994; Stackman, Pinder, & Connor, 2000), possibly because people apply value congruence as a self-evaluative mechanism (Baron, 1997; Baron & Spranca, 1997; Shah & Higgins, 1997). Values influence how people interpret information and they are related to whether or not they are willing to accept certain types of information (Dunning & Hayes, 1976; Tetlock, 1998). Values may reflect interests (individual, group,

organizational, or institutional) the individual is willing to serve (Schwartz & Bilsky, 1990). Therefore, values may provide broad knowledge to predict the attitudes and behaviors of others and may be one of the sources of information that people use to make similarity judgments. The relationship between similarity and liking is very strong when the basis of comparison is based on articulated values (Newcomb, 1961). Dose and Klimoski (2001) point out that as value similarity becomes more pronounced through circumstances (e.g., characteristics of the task or leader), perception of similarity based on irrelevant bases will become less salient (2001), leading to more accurate perceptions of actual similarity. In previous studies, similarity in values has been shown to lead to increased LMX (Bauer & Green, 1996; Green, Anderson, & Shivers, 1996; Liden, Wayne, & Stilwell, 1993).

Similarity in values has been linked to how leaders influence and motivate their followers. Leaders articulate values through a vision, an idealized representation of what the organization should become (Zaccaro & Banks, 2001). This articulation includes communicating values through speech as well as embodying values through leader behaviors (Kirkpatrick & Locke, 1996). Leaders provide followers with meaning by constructing and communicating a vision that articulates followers' values while allowing them to express their identity through a shared collective vision (Mumford & Van Doorn, 2001). This vision motivates followers to work towards an envisioned future and fosters feelings of competence and self-worth in followers who accept the vision (House & Shamir, 1993; Mumford, Yammarino, & Dansereau, 2000; Shamir, Zakay, Breinin, & Popper, 1998) and could make the work more meaningful (Hackman & Oldham, 1980). The values embedded in the vision are seen as the motivating factor and the foundation of the leader's influence on followers (Mumford, Yammarino, & Dansereau, 2000; Senge, 1990). Through the articulation of these

values, leaders gain liking, loyalty, and support, cultivate a collective identity, and increase the confidence and individual self-worth felt by those followers who share the values of the leader (House & Shamir, 1993; Kirkpatrick & Locke, 1996; Zaccaro & Banks, 2001).

In their review of the theories and previous research of the visions of leaders, Zaccaro and Banks (2001) note that the values of both leaders and followers have often been described as sources of the leaders' visions. The values of the leader are central to the content of the vision (Hambrick & Brandon, 1988, Kouzes & Posner, 1987). The shared values between leaders and their followers are also vital to the formation and success of a vision. Unsuccessful visions are often linked to visions that did not meet the needs or values of followers. When the values of the leader do not match the values of his or her values, leaders often negotiate with followers to create a vision that articulates the values they have do have in common.

Since people have been found to selectively pay more attention to information that matches their values (Nisbett & Ross, 1985), a follower should be more sensitive to and more willing to attend to articulated values more rapidly and with more intensity when these values are important to the follower. Shamir, House, and Arthur (1993) found that followers' identification with articulated values is an important mediator which impacts value articulation and the performance of the followers. The influence that the leader's vision has on his or her followers is particularly effective when the vision is highly similar with followers' values (Shamir, 1995). Additionally, people perceive and process information more rapidly when it relates to important values. Shamir et al. (1993) proposed that the personal values and social identities that compose a person's self-concept is organized hierarchically and that the more central a value is to a person's self-concept, the more it will

influence the person's choice of behaviors in a given situation. Therefore when articulated values are held strongly by both the leader and his or her followers, the effects of the leader's articulation of these shared values will plausibly take place more easily, quickly, and readily. Since the leader's value is central to creating the vision (Zaccaro & Banks, 2001), the effects of leader-follower similarity should be strongest when this similarity is based on the more important values of the leader.

The bases for role conflict include incompatibilities among values, as well as lack of resources such as time or task-related competencies, or multiple role responsibilities. Diverse members will often take different approaches to the task (Kanfer & Ackerman, 1989). Conflicts based on values may potentially be more difficult to resolve since compromising values is often not an option, especially for important values. Value dissimilarity may increase role conflict by increasing the likelihood that such conflicts occur. Role conflict may arise from misunderstanding between what role is wanted. Value dissimilarity also decreases communication accuracy and effectiveness (Cheryl, Ravlin, & Meglino, 1996; DiSalvo & Larsen, 1987; McCroskey, Richmond, & Daly, 1975) and so may increase role conflict via miscommunication. Role conflict may induce the followers to withdraw and reduce the amount of communication with role senders (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964).

When leaders and followers hold different values, group process performance take longer to establish and will be lesser quality than when leaders and followers share similar values, leading to increases in task and emotional conflict and a decrease in cohesiveness and coordination of the followers. For example, when individuals have different values, they tend to commit more time to group maintenance than task performance (Shaw, 1981). When

values are not shared between leaders and followers, leaders will require more time and effort to communicate and persuade followers to "buy into" their vision to generate consensus around a more centrally-held vision, using resources that could otherwise be contributing to task performance. As differences in values increases, the time and effort required for planning and communication should increase, perhaps even nonlinearly, since more in-depth planning will be required for successful performance and to establish a shared vision incorporating the values that followers do share with the leader (Mumford, Schultz, & Osburn, 2002). Since planning is a resource-intensive activity, the group will have fewer resources left after planning to spend on process and task performance.

Since planning reduces role conflict, planning should reduce the affects that value similarity has on group performance. The values embedded in the vision act as an initial plan for what is necessary to get to the future goal and also provides a way to judge what one should and should not do in the group (Zaccaro & Banks, 2001). As publicly articulated plans, one of the ways that visions contribute to group performance is by providing a framework for structuring the activities of different individuals, providing a basis for more effective communication and coordination of activities. Plans direct responses to change, thereby permitting the identification and exploitation of emerging opportunities. Planning should also allow leaders to capitalize on the larger amount of information and different perspectives present in a group of diverse followers, therefore increasing leaders' ability to cope with change and solve novel problems (Dunbar, 1995; Mumford, Schultz, & Osburn, 2002; Mumford, Schultz, & Van Doorn, 2001).

Articulation of shared values and higher LMX will not always lead to increased individual and organizational performance. The effects of leaders' vision articulation can be

destructive or constructive, depending on the values that are held and articulated by the leader (Bass, 1985; Conger, 1999; Howell, 1988; Howell & Avolio, 1992; Mumford, Gessner, Connelly, O'Connor, & Clifton, 1993). Conger and Kanungo (1998) found that negative charismatic leadership was related to personal as opposed to prosocial values and emphasized egoism over altruism, control over empowerment influences, personal power over institutional power, personal achievement over social achievement, and unethical over ethical moral values. Socialized charismatics, those who promote pro-social collective achievements, are less likely to display negative charismatic behavior (House & Howell, 1992; Howell & Avolio, 1992). Value-centered leadership (Bass & Steidlmeier, 1999; House & Aditya, 1997) emphasizes pro-social behavior in society and implies that religion, family, and common good values based on human rights and freedom will predict better leader performance. Prosocial and individual values are also related to perceptions of leader behaviors. Feather (1994) showed that prosocial and spiritual values are positively related to fairness and equity judgments of individuals, while the individual values of hedonism and power were negatively related to these judgments. Bass (1999) theorized that value articulation raised the awareness of the importance and value of desired organizational outcomes, motivating followers to transcend self-interests and only honest, sincere leaders who seek outcomes for the common good and who promote the independent thinking of their followers (i.e., transformational leaders) are effective in the long run. Given that shared values facilitate the leaders' articulation of values, and so can be seen as a central process in transformational leadership, an experiment conducted by Jung and Avolio (1999) found what can be interpreted as additional confirmation for the need to distinguish between prosocial and individual values in examining the effects of the articulation of shared values

by the leader. When leaders articulated prosocial values (i.e., transformational leaders), they were more effective with collectivist groups of followers (i.e., those holding prosocial values), whereas transactional leaders (i.e., using individualist rewards) were more effective in individualist groups of followers. House and Shamir (1993) argued that the effect of leaders' articulation of shared values on performance effectiveness comes about via an increase in the affiliation motive among followers which then increases the cohesiveness of the group. An emphasis on shared prosocial values as opposed to individual values facilitates this process (Shamir, et al., 1993.)

The impact of shared values may also depend on context. Strong situations (Mischel, 1977) are clear, structured, and unambiguous. They provide apparent, recognizable incentives for certain behaviors and create uniform expectations. Most individuals in a strong situation interpret these situations in the same manner and tend to conform to expectations and norms. Kerr and Jermier's (1978) Substitutes for Leadership refer to such strong situations as a neutralizer for leadership, meaning that the situation will eliminate the impact of leadership on followers' performance. Yukl and Howell (1999) propose that strong situations would blunt the affect of leaders' articulation of shared values on followers. In contrast, leaders' articulation of shared values will be more influential on followers in a weak situation where the organizational context provides no information about what behaviors will lead to rewards. In weak situations, leaders have more opportunity to provide meaning to the situation. Organizational cultures can provide either strong or weak situations. For example, when an organization is first established, it starts as weak situation: new organizations lack organizational rules, procedures, and culture. In contrast, established organizations can be considered to be (relatively) strong situations, since they possess well-

established norms, cultures, rules, and procedures. Established cultures do not always provide the strongest situation. Organic cultures (Burns & Stalker, 1966) are loosely structured and are flexible and innovative and so is an example of an established culture providing a weak situation. Communication in this culture is open and authority is decentralized and participatory. Organic cultures focus on being adaptable in order to assist followers to meet their goals. Mechanistic cultures, an example of a very strong situation, are hierarchically structured, with authority residing in upper management who primarily communicate downward to followers. An example of a mechanistic culture is the traditional bureaucracies where the rules and regulations are explicit and firm. Role conflict and ambiguity will be lower in mechanistic organizations and greater in organic organizations. In mechanistic organizations, in-role behaviors are clearly specified and members agree on what rules are followed (Burns & Stalker, 1961). The articulation of shared values by leaders should therefore be more influential on planning performance in the organic culture while shared values in the mechanistic organizations will be less necessary reducing the need for planning in the mechanistic culture (Kerr & Jermier, 1978; Yukl & Howell, 1999). However, mechanistic organizations can also be overly restrictive, limiting the flexibility for leaders and followers to adjust rules and procedures to the needs of the situation and the followers (Adler, Goldoftas, & Levine, 1999; House, Spangler, & Woycke, 1991). When groups and leaders hold similar values, the need for coordination and communication decreases.

Although there is some disagreement about the independence of dyads from other dyads in the group, it is more likely that effective leadership will require leaders to act for the benefit of the group over that of any individual belonging to the group (Mumford, Dansereau, & Yammarino, 2000). Because of a limitation on resources, leaders tend to have

high LMX relationships with a few followers, with other followers having lower LMX relationships with the leader. Sparrowe and Liden (1997) point out that both of the perspectives used in the development of LMX theory (role theory and social exchange theory) acknowledge that these dyadic relations develop within a social context. When leaders vary their behaviors depending on the relationship they have with others for reasons unrelated to performance or the needs of the group, they may be perceived as unjust or unethical. Leaders tend to have limited resources to use as rewards, leading to emotional conflict.

While followers may see increased access to resources as a reward to those who have performed well, followers may also feel that resources should go to those that need the resources to increase performance or that resources should be equally distributed to all followers (e.g., Deutsch, 1975; Schwartz, 1973).

Even when the variation of treatment of followers is based on justifiable criteria, a follower's opinion of the leader will still be influenced by information from other followers and observable behavior shown to others, as will the leader's opinion of the follower (Mumford, Dansereau, & Yammarino, 2000; Sparrowe & Liden, 1997). The self-perception of the follower is also subject to the social context and is likely to hinge on the opinions and reactions of the other members of the group. For example, Exline and Lobel (1999) found that outperforming a peer can lead to negative affect (e.g., guilt, sadness, or worry) when the higher performer is concerned about their peers' reaction to their success. Perceptions of leaders by individuals in an organization converge to the extent to which they have proximity and exposure to others (Marsden & Friedkin, 1994). Additionally, when leaders

vary their behavior based on whom they are interacting with, followers may perceive leaders as lacking in integrity (Hooijberg, Bullis & Hunt, 1996, as cited in Hooijberg, 1997).

Additionally, if a leader is more similar to a subgroup of followers that means that these followers are less similar to the remaining followers in the group, group diversity is increased. Similarity of values between group members has been linked to a number of group processes and performance (see Dose & Klimoski, 2001 for a review), with more homogeneous teams experiencing more favorable interactions, cohesiveness, and performance gains when the group is committed to performance (Lott & Lott, 1965; Tsui, Egan, & O'Reilly, 1992). Diverse teams experience lower cohesiveness (Tsui, Egan, & O'Reilly, 1992) and conflict (Jackson, Brett, Sessa, Cooper, Julin, & Peyronnin, 1991). These forces are balanced when leaders' values are similar to the shared values of the group.

The effects of value similarity depends on other forms of leadership behavior

Mumford, Dansereau, and Yammarino (2000) proposed that leaders might have multiple styles of leadership available for them to use. They further theorized that the context would influence the need/impact and effectiveness of these leadership behavior, which may include the need to motivate followers (individualized leadership; Dansereau, Yammarino, Markham, Alutto, Newman, Dumas, Nachman, Naughton, Kim, Al-Kelabi, Lee, & Keller, 1995; 1998), manage organizational change (transformational leadership; Bass, 1995), lead a group (the task and relationship behaviors of Initiating structure and Consideration; Fleishman, 1953), or to fulfill a role requirement (Katz & Kahn, 1978). The combination of different styles and contexts may provide boundary conditions for the effectiveness of the other styles of leadership, particularly when examining outcomes at

different levels of the organization. For example, the need for trust and justice perceptions at the group level may limit the effectiveness of any differential treatment of followers at the individual level (Mumford, Dansereau, & Yammarino, 2000).

Initiating structure refers to the leader's ability to define the task and clarify the expected behaviors (Stodgill, 1963; 1970). The initiating structure dimension of leadership involves attempting to establish rules and regulations, channels of communications, and procedural methods to establish well defined plans that organize, constrain, and direct the efforts of teams to facilitate performance towards group goals and objectives (Halpin, 1957). Examples of these behaviors include coordinating, planning, guiding, and problem solving. A number of studies have examined the relationship between leadership dimensions and role stressors and substantial empirical evidence has shown that indicating initiating structure is associated with reduced role ambiguity (Jackson & Schuler 1985) and role conflict (Teas, 1983). Since role conflict decreases the affect of LMX on performance (Dunegan, Uhl-Bien, & Duchon, 2002), initiating structure should moderate the influence of value dissimilarity between leaders and followers on group performance, especially in regards to planning-related process performance. The need for initiating structure should be less in mechanistic organizations, since cultural cues may provide enough feedback about expected behaviors in this situation.

The Consideration dimension of leadership behavior refers to behavior indicating friendship, mutual trust, respect, and warmth in the interactions between the leader and members of the group (Halpin, 1957; Hemphill, 1955; Stodgill, 1963). These behaviors are more relational in nature (Yukl, 2002) and are related to the promotion of mutual friendship, trust, respect, and affection (Jackson & Schuler, 1985). Although leader consideration has

been thought of as socio-emotional in nature it also has task-oriented functions as well (Jackson & Schuler, 1985). Podsakoff, Todor, Grover, and Huber (1984) pointed out that leaders tend to show consideration after a follower performs well and so consideration acts to elucidate what is expected by rewarding employees for preferred behaviors, and so consideration reduces role conflict. Therefore, consideration should moderate the influence of value dissimilarity between leaders and followers on group performance as well, but its' effect should be seen more strongly when looking at cohesiveness and emotional and task conflict. Although followers are likely to prefer consideration by leaders, regardless of the situation (Stogdill & Coons, 1957; Yukl, 1971), the need for consideration should be greater in mechanistic organizations. As the situation becomes more strongly structured the need for Consideration by the leader increases (Fleishman & Harris, 1962).

Similarity indices

A variety of techniques have been proposed to operationalize similarity, each with its own advantages and problems. Meglino and Ravlin (1998) reviewed and critiqued the four basic methods of operationalizing similarity and made recommendations about the appropriate use of each. The four basic methods reviewed were perceived similarity (e.g., Posner, Kouzes & Schmidt, 1985), difference scores (e.g., $Value_{leader} - Value_{follower}$), the correlation of one profile with another (Q; Cronbach & Gleser, 1953), and polynomial regression (Edwards, 1993; 1994). Perceived similarity measures the perception of similarity from the person's perspective. While perceived similarity may be based at least partially on actual similarity, these perceptions may also reflect image management behaviors or inaccurate ideas regarding what the target's values are, what values are most important to the

target, and the actual similarity that exists (Meglino & Ravlin, 1998). The use of this index is recommended when actual similarity is not as important as the perception of similarity. While perceived similarity is thought to be important to the impact of value similarity between leaders and followers on outcome measures, actual similarity should be more important in the prediction of group performance since values are thought to underlie most behavior. However, if the measure of values used in the present study did not capture the values used in making similarity judgments, perceived similarity may be more appropriate. Therefore, perceived similarity was included in this study.

The correlation of profiles takes into account the overall pattern of similarities, but ignores any difference in elevation (Edwards 1993, 1994; Meglino & Ravlin, 1998). It is plausible that this index might apply to this study (Meglino & Ravlin, 1998), since followers may desire leaders who would make similar choices as they would make, even though followers or leaders might prefer their choices more strongly than the other. Therefore, this index was also included in this study.

On the other hand, followers may prefer leaders who agree on the importance of each value held. In that case, either difference scores or polynomial regression method would be more applicable as an index. Difference scores do not differentiate which value similarity is contributing to the effects of overall similarity and have problems with reliability and loss of information (Edwards 1993; 1994). Polynomial regression is an extension of the use of hierarchical multiple regression predicting the outcome variable with first the component variables, then their cross-product as the difference measure. Polynomial regression would allow the examine the unique contribution of value similarity for each value, but would also require a large data set, since each comparison uses a high number of

degrees of freedom but would not allow any analysis of moderation of these relationships (Meglino & Ravlin, 1998). Furthermore, this method has more problems with multicollinearity than difference scores (Tinsley, 2000) and the interpretation of significant quadratic and cross-products may be problematic unless they are directly relevant from a theoretical point of view (Bedeian & Day, 1994). Difference scores would be more applicable to this study since people are thought to make similarity judgments based on several values and this method would allow analysis of moderation of the relationship between leader-member value similarity and group performance by cultural and leadership behavior variables. Therefore, indices based on the squared sum of difference scores across the values measured in this study were included as well.

Hypotheses

Hypothesis 1: Similarity in values held by leaders and their followers will be related to liking of the leader by the group.

Hypothesis 2: Similarity in values held by leaders and their followers will be related to group task performance as well as group process performance. Groups that are more similar to their leader will be more cohesive, will have better quality of interactions, have less conflict, and their planning will be more effective than groups who are less similar to their leader.

Hypothesis 3: Similarity in values held by leaders and their followers will have a greater impact when these shared values are more important to leaders, than when values are among the least important values to the leader.

Hypothesis 4: Similarity in values held by leaders and their followers will have a greater impact when these shared values are more important to followers, compared to the least important to the followers.

Hypothesis 5: Similarity in prosocial values between leaders and followers will have a greater impact on task and process performance than will similarity in individual values. Similarity in prosocial values will also have a greater impact on group process performance compared to task performance.

Hypothesis 6: Similarity in values will interact with cultural structure. Greater dissimilarity in values will lead to decrements in task and process performance in organic cultures more than mechanistic cultures and increase the need for planning especially for groups receiving the organic cultural manipulation.

Hypothesis 7: The leader behaviors of Initiating structure and Consideration will interact with leader-member similarity. When groups are more different in values from their leader, leaders who show more Initiating structure toward their groups will have groups who can overcome possible decrements in performance found for diverse groups via planning. These leaders might be more able to capitalize on the diversity of perspectives within their groups, and so they will have a better task and process performance than will leaders who are show less Initiating structure or who have more similar groups. However, this increased need for planning may come at a price; time and energy must be spent on planning over implementation and so this positive relationship should be stronger for planning performance as compared to task performance. Consideration will facilitate group task and process performance

more for groups having lower leader-member similarity than for groups with greater leader-member similarity.

Hypothesis 8: Leader behaviors of Initiating structure and Consideration will interact with cultural characteristics. Initiating structure should be negatively related to performance in mechanistic cultures since this culture will already be providing structure for group members' behaviors. Consideration will be positively related to group task and process performance for followers in both cultures and the interaction with Culture should not be related to group performance.

Hypothesis 9: Leader behaviors of Initiating Structure and Consideration will interact with leader-member similarity and cultural characteristics. Increased Consideration when groups are less similar will be detrimental in organic cultures, since such behaviors will emphasize the dissimilarity between leaders and groups. A highly structured culture (mechanistic) will ameliorate the effects of dissimilarity and will also increase the need for Consideration.

Method

Participants

One hundred and twenty university students participated in this two-session study for credit in an introductory psychology class or an introductory statistics class. This convenience sample included 57 males and 47 females (and 8 who did not report their gender). The range of age for participants indicated 90% between the ages of 18 to 29 ($\overline{X}$ = 22.31, SD = 7.07). Self-reported ACT scores for 81 participants had a mean score of 23.81 with a standard deviation of 3.89. On average, participants had 5.73 years of work

experience (SD = 6.41; X_{50} = 5.0) and 48 reported having previous supervisory experience. Table 1 shows the percentage of groups of a given size.

General procedures

This experiment was conducted in two sessions, with both sessions lasting approximately two hours. During the first session, all participants filled out a packet of pen-and-paper surveys that were described to them as measures that would be used to choose leaders for the second session. They were actually reference measures including background information and a measure of values.

For the second session, participants were randomly assigned to groups of three to six participants based upon the number of participants attending the time slot for a given session. One person in each group was ostensibly assigned to the leader position based on responses to the measures given in the first session. Leaders were actually randomly assigned to their position. To increase the group's perception of their leader as a recognizable leader, the experimenter framed all instructions primarily towards each leader and provided unique materials to them.

Leaders and their groups were then given 15 minutes to create a group name that described its members, based on Zaccaro and McCoy's (1988) procedure to increase cohesiveness. This manipulation was thought to increase the amount of personal information that was exchanged between group members, thus potentially increasing the accuracy of the perceptions of the values of the leader and the group. Dose and Klimoski (2001) proposed that making values more salient would decrease the impact of demographic characteristics, especially when values and demographic attributes are unrelated.

Participants were then given a packet of information, containing a description of their role in the role play exercise. Participants played the role of employees in an architectural organization. Employees in this organization worked in teams to design and build model bridges for clients. Their client, a nearby city, had several conflicting needs (e.g., to distinguish the neighborhood receiving the bridge, to keep costs low, to have a safe and long-lasting bridge, etc.) and wanted to see different models before deciding which one to commission. The model for this bridge had to meet minimum qualifications of length, width, and height that, in scale, ostensibly corresponded roughly to the situation in which it would be built. Participants were told that each group's bridge would be evaluated later by the others in the organization before the final group of model bridges would be shown to the client.

Measures for the first session

Covariates. Three covariate measures were used to control for known leader characteristics that could affect the performance of the group: social skills, general intelligence, and previous supervisory experience. Other information was gathered to describe the participants in the sample. Participants were asked to provide demographic information about their age in years, gender, and race. They were asked to report Scholastic Aptitude Test and/or ACT Assessment scores, along with their current GPA. This self-reported grade-point average was used as a proxy for general intelligence. Participants were asked about the number of years of work experience and if they had supervisory experience.

All participants completed the Social Skills Inventory (SSI; Riggio, 1986), which measures verbal and nonverbal social communication skill factors that compose global social

skill or social competence. The 90 items of this self-report measure comprise six subscales, 1) expressiveness, 2) sensitivity, and 3) control, each measured at an emotional and social level. For the purposes of this study, only the total composite will be used to represent social skills. Items are rated on a 5-point Likert type scale with anchors ranging from "Very true for me" to "Not at all true for me." Test-retest reliabilities for the six SSI subscales range from .81 to .96, and internal consistency (α) coefficients for the subscales range from .62 to .87 and show convergent and discriminate validity via predicted patterns of correlations with other tests such as affect communication, nonverbal sensitivity, and personality measures (Riggio, 1989). A sample item from the 90-item self-description measure is "I am not very good at 'keeping my cool'." Cronbach's α for the total in the current study using the subscales as items was .65.

Values. The recently developed values measure (Connelly, Helton, Schultz, Van Doorn, Benavidez, Thompson, & Mumford, 2000) was chosen for this study. This indirect measure was developed using a modification of the procedures suggested by Feather (1995) and Hemmelgam, Green, Mazerolle, & James, 1994). First, a set of 28 scenarios were developed to reflect common family, social, and work situations that each presented a complex, ambiguous problem, followed by three to four questions asking what actions or decisions the participant would take if he or she were the person in the situation. The total of 108 questions were developed to tap creative problem solving abilities identified in a factor analytic study conducted Berger, Guilford, and Christensen (1957). After each question, participants were presented with 8-12 different potential responses or actions and they were asked to choose what they believed the best third of them to be. Figure 1 shows an example

scenario with its accompanying questions and responses. The choice of responses indirectly assessed values.

Insert Figure 1 About Here

The scales for the 21 values assessed via this measure were based on a taxonomy developed using an extensive review of the literature on values and respective measurement scales (Hofstede, 1980; Inglehart, Basanez, & Moreno, 1998; Rokeach, 1973; Rokeach & Ball-Rokeach, 1989; Schwartz & Bilsky, 1987; Schwartz, 1994; Super, 1970; Super & Sverko, 1995). This values taxonomy defines sixty-eight values that are subsumed into twenty-one composite scales under eight domains of work, family, friends, leisure, political, religion, education/philosophy, and culture. Initially, three psychologists used the sixty-eight values to generate the responses to each of the questions in the scenarios, by specifying actions, strategy preferences, and goals that would reflect desirable outcomes or preferred work styles given the scenario and questions at hand (Feather, 1994; Rokeach, 1975; Schwartz, 1994). Responses were reviewed for plausibility, appropriateness of the response and scenario of concern and those responses that did not meet these standards were eliminated. On average, twenty-two responses were developed for each of the targeted values. To confirm the content validity of the study, Connelly and colleagues (2000) had three different psychologists who were blind as to the initial mapping of the responses onto the values taxonomy review the responses and recode them onto the taxonomy for a selection of nine scenarios, over 200 response options in all. When consensus of the mappings obtained from these judges for the different values were contrasted with the initial

response assignments, 77% agreement was obtained. Thus, there is some reason to believe that the response options reflected the targeted values.

To further develop the value scales, the following procedures were applied. First, total scores were obtained by counting participants' chosen responses associated with a given value and the total was divided by the total number of possible responses mapped to that value. An internal consistency analysis was conducted and responses yielding low correlations with total scores were then dropped, highly correlated scales were collapsed, and then a second internal consistency analysis was conducted on the collapsed scales. An internal consistency analysis was conducted for the current study, with responses yielding low item-total score correlations being dropped from each scale before the total scores were calculated. Cronbach α's ranged from .40 – .76, with an average α of .56. See Table 2 for a list of the measured values, their definitions, and the internal consistencies of these scales in the current study.

Insert Table 2 About Here

Subsequent research using the measure demonstrates the reliability and validity of the measure (Van Doorn, 2000; Mumford, Connelly, Helton, Van Doorn, & Osburn, 2002; Mumford, Decker, Connelly, Osburn, Scott, 2002; Mumford, Helton, Decker, Connelly, & Van Doorn, 2003). One study found internal consistency coefficients (Cronbach's α) have yielded coefficients in the .60s (Connelly, Helton, Schultz, Van Doorn, Benavidez, Thompson, H. K., & Mumford, 2000), while a second found a range from 38 to .70. Meaningful patterns of correlations between scores on this value measure and the Schwarz

Value Inventory yielded evidence for convergent validity, while scores on this measure predicted ethical decisions (Mumford, Decker, Connelly, Osburn, Scott, 2002). For example, people who were concerned with their own personal gain (financial or hedonistic) were more likely to make unethical decisions, whereas people who were more concerned about social and family values were more likely to make ethical choices. Using different theories concerning the relationship between values and leadership performance, Van Doorn found that patterns of scores on these value scales (e.g., ethical, achievement, and core corporate models) produced adjusted multiple correlations in the upper .40s and 50s in explaining leadership performance on an in-basket leadership task. Mumford, Connelly, Helton, Van Doorn, & Osburn (2002) found that this indirect measure of values predicted variance of the performance on three different performance tasks (an entrepreneurial task, a consulting task, and a marketing task) over and above that predicted by a direct measure of values (Schwartz Value Inventory), while both measures were effective predictors. Additionally, the indirect measure of values yielded better discrimination of cross-task performance.

Cultural Manipulation

The groups in each session were assigned to one of two cultures, manipulated via the description in their instructions. The two different cultures were based on the organic and mechanistic cultures (Burns & Stalker, 1966). The mechanistic culture focused on efficiency in effort, time, and cost, and on the need for employees to follow the rules and procedures of the organization. The organic culture focused on development of employees, creativity, and flexibility in both rules and procedures. Cultural descriptions included lists of awards that the organization had received, with awards for categories based on the organizational

culture. For example, one award for the organic organization was for having the most creative bridge for a given year, while examples of the awards for the mechanistic organization was for building bridges within budget and the agreed-upon timeframe. An 8-item measure of the perception of the culture organization was designed to check for the success of this manipulation. Example items include, "I think that this organization encourages its employees to grow and learn" and "This organization trusts employees to work on their own." Items were measured on a 1 (Strongly Disagree) to 5 (Strongly Agree); however groups did not differ on their perceptions of the culture when receiving different cultural manipulations. (Aspen-Welch t-test: $t(23.18) = 1.06$, $p = .30$.

Group Task

In this role play, the architectural organization supposedly had a modular building system, with components developed to be exchangeable and to fit together easily. These components were represented in the exercise by K'nex toys. Employees were told that these modules would decrease the cost and increase the flexibility of the design and manufacturing phases of building bridges for clients.

Because leaders are known to bring both information and materials to their groups in organizations, the leaders in this experiment were the only ones allowed to have direct access to the supply of building materials (the K'nex toys, pens and paper, scissors, tape, string representing cable, construction paper representing pavement, a calculator, and a ruler) and to printed cards containing information about how to construct with the K'nex toys and showing examples of different types of bridges. Some of these cards included bridges that could not be built with the materials and time given to the groups. Such designs

had a warning of this fact printed on these cards. Other models, if built, would not meet minimum qualifications. The experimenter brought these constraints to the attention of each leader when showing each leader the K'nex toys. This information and materials were located in a different location, away from the direct view of the group. Leaders used a plastic tray to carry information to the group. They could make as many trips to the materials as they needed. Leaders had a handout showing different types of simple braces that could be used to build the model bridge. They were allowed to show the group this handout, but had to describe the designs from the cards. Thus, leaders were faced with restrictions that needed some problem solving and planning skills.

Leaders had to make sure that a form was completed asking for the number of each modules that were used to build the model bridge, the projected cost for the bridge, based on costs for each of the components, and for the final measurements of the model. Leaders were reminded that the cost of the bridge was only one considerations of the client, and could be ignored when designing the bridge if cost was not a concern in the design.

Post-surveys

After an hour and 15 minutes, all groups were told to stop building. Each participant was given a packet of surveys to complete. Group members were asked to rate their leaders' performance using the Leader Behavior Description Questionnaire (LBDQ; Halpin, 1957; Stodgill, 1963, 1970) and Leader Member Exchange Quality (LMX-7; Scandura & Graen, 1984), to provide ratings of group process performance. A list of the leadership and group process measures is given in Table 3. All participants were asked to complete manipulation check questions on the cultural manipulation and questions asking about whether they found the task enjoyable, whether they would be willing to volunteer for a second experiment

similar to this one, and whether they had enough time, materials, and information to complete the task.

Leader Behavior Description Questionnaire (LBDQ). The instruments used included the short form of the Leadership Behavior Descriptive Questionnaire (LBDQ-XII) developed by Stogdill out of the Ohio State University Leadership Studies (Stogdill, 1974). This instrument has been used extensively in various settings. The LBDQ measures the leader behaviors of Consideration and Initiating structure. Respondents were asked to indicate the frequency with which their leader exhibited each type of behavior. The 20 items are rated on a 5-point Likert type scale with anchors ranging from "Always" to "Never." A sample item from the Consideration scale is "He/She looks out for my personal welfare." Cronbach's α for Consideration scale in the current study was .67. A sample item from the Initiating structure scale is "He/She assigns me to particular tasks." Cronbach's α for the Initiating structure scale in the current study was .90.

Liking. The 3-item measure of liking was adapted from studies done by Wayne and colleagues' studies (Wayne & Farris, 1990; Wayne, Shore, & Liden, 1997). An example item is "I like this employee very much." Measured on a one to seven scale, with anchors of "Strongly disagree" and "Strongly agree," the Cronbach's α for this study was .91.

Perceived similarity. Perceived similarity was assessed through the use of a scale with four items. One example of the items was "I fit in well with this person." The anchors for the 5-point Likert scale were "Strongly agree" and "Strongly agree," the Cronbach's α for this study was .89.

Leader-member Exchange Quality (LMX-7). This use of the LMX-7 is recommended over that of other measures of LMX as this shorter survey has produced similar effects as the alternatives (Graen & Uhl-Bien, 1995) and reliability estimates are also high, with typical Cronbach α's within the range of .80 – .90. LMX-7 is a 7-item measure of the quality of the relationship between a leader and a member, typically measured from the perspective of the follower. Items are rated on a 7-point Likert type scale with anchors ranging from "Strongly disagree" to "Strongly agree." A sample item is "My leader understands my problems and needs." Cronbach's α for the total summed measure across the subscales in the current study was .95.

Procedural/Interactional justice. Leader-member similarity is thought to bias leaders' behavior towards those similar to them producing perceptions of inequity and unfair treatment that would ultimately limit group performance (Mumford, Dansereau, & Yammarino, 2000). Since the organization did not have clear cut procedures with which all members would be familiar, the procedural justice aspect dealing with the fairness of the procedures themselves was not thought to be appropriate. Interactional justice, one aspect of procedural justice (Moorman, 1991), is defined as perception of fairness based on the way in which the procedures are applied. The items are written to capture perceptions of the leader towards the follower, for example was the leader considerate, honest, and respectful of the rights of the employee (Moorman, 1991). Examples of the six items include "Your supervisor provided you with timely feedback about the decision and its implication" and "Your supervisor considered your viewpoint." Participants responded to these items using a 5-point Likert scale, with anchors ranging from "Strongly disagree" to "Strongly agree." Moorman found an internal consistency of 93 for the scale, which showed a positive

relationship to OCB (1991). This scale of interactional justice is the most comprehensive and most frequently used measure of interactional justice (Colquitt, 2001). Cronbach's α for this scale in the current study was .91.

Team-member exchange. The Seers (1989) TMX scale was used to assess the quality of interactions between team members and the team as a whole. These questions measure perceptions of the exchange of assistance, information, and social support between the individual and the team. An example of one of these ten questions was "How willing are you to help finish work that had been assigned to others?" Responses were as assessed using a 5-point Likert scale, anchored by "Strongly disagree" and "Strongly agree." Cronbach's α for the measure in this study was .89.

Conflict. Emotional conflict and task conflict was assessed using Jehn's Intragroup Conflict Scale (Jehn, 1994; Jehn et al., 1997; Shah & Jehn, 1993). This instrument consists of eight 5-point Likert-type items. The four items that composed the emotional conflict subscale included for instance, "The members of this team had personality clashes." The four items that composed the task conflict subscale included, for example, "This team had a lot of differences of opinion." Cronbach's alpha for the emotional conflict subscale was .97; and Cronbach's alpha for the task conflict subscale was .89.

Group cohesion. A modified version of Widmeyer, Brawley, & Carron's (1985) Group Environment Questionnaire (GEQ) was employed to measure the participants' perceptions of their team's cohesion. Comprised of 17 items, the survey was scored on a 5-point Likert scale. Developed around their theory which distinguishes between the perspectives of the group and the individual and between task and social cohesiveness, they

interviewed and surveyed sport athletes, wrote items based on their responses, then asked five experts in the area of group dynamics, social psychology, industrial psychology, and also sports psychology before deleting, modifying, or adding items. The resulting measure was revised further using an item analysis technique. Although all four scales tend to be correlated, recent theorizing and empirical findings suggest that the four constructs are different and explain different aspects of team cohesion (Spink, 1989). Confirmatory factor analysis using college athletes has confirmed the theoretical structure (Li & Harmer, 1996). The measure, primarily used in research on cohesion in sports teams, has shown good validity and internal consistency in previous studies. The measure is correlated to other measures of cohesion and can discriminate group membership (Carron, Widmeyer, & Brawley, 1985; Brawley, Carron, & Widmeyer, 1987).

The GEQ has four subscales as well as a total cohesion score. Group Integration-Task (GrpIntT) is a measure of the individual team members' perceptions about the similarity, closeness, and bonding within the team as a whole around the group's task (5 items; e.g., "Our team is united in trying to reach its goals for performance."). Group Integration-Social (GrpIntS) measures the individual team members' feelings about the group as a social unit (4 items; e.g., "On the whole, members of our team would get along well together."). Individual Attraction to the Group-Task (IndAttT) is a measure of individual team members' perceptions about their personal involvement with the group task, productivity, goals, and objectives (3 items; e.g., "I am unhappy with my team's level of desire to win (reverse scored)."). Individual Attraction to the Group-Social (IndAtt-S) is a measure of individual team members' feelings about personal involvement with the group and social interaction with the group. (five items; e.g., "I would like to remain friends with

people on this team."). Cronbach α for the subscales were .48 (IndAtt-S), .57 (IndAtt-T), .39 (GrpInt-S), .52 (GrpInt-T), and .83 for the total using the subscales as items.

Planning. The survey measure of group planning performance was developed for this experiment, based on literature searches on planning competencies (Mumford, Schultz, & Osburn, 2001) and group planning performance (Mumford, Schultz, & Van Doorn, 2001). The survey targeted three different aspects of planning performance: adaptability, situatedness (how well the group took into consideration the details of the situation), and depth of planning. Each item was rated on a one to five scale ("Strongly Disagree" to "Strongly Agree"). Examples of the eight items measuring adaptability are "The members of my team adapted easily to changes in the plan" and "Alternative plans were considered readily when problems were encountered." Examples of the eight items measuring situatedness are "We chose plans that we thought would fit the abilities and interests of the group" and "Before we revised our plans, we took into account how well we were performing overall." Examples of the six items measuring planning depth are "We considered all of our options in depth" and "We had a few backup plans made before we needed them." Reliability indices showed that these scales had acceptable reliability at the individual level (Cronbach alphas: adaptability, $\alpha = .77$; situatedness, $\alpha = .85$; depth, $\alpha = .88$; total, $\alpha = .80$). Pearson correlations showed that Adaptability and Situatedness were correlated at the individual level (r - .63, $p = .000$), as was Situatedness and Depth ($r = .65$, $p = .000$) but Depth and Adaptability were only moderately correlated (r - .35, $p = .000$).

Perceived similarity. All participants completed measures about the perceived culture of the organization, using an eight-item survey developed for this study. Examples of items include "This organization would be open to suggestions to do things differently" and

"This organization is willing to give employees more responsibilities." Participants used a one to five scale ("Strongly Disagree" to "Strongly Agree) to rate their perceptions of the culture ($\alpha = .80$).

Objective task performance

After all participants left, the experimenter took several digital pictures of each bridge from at least four different views (side, front, diagonal, and from underneath), with more pictures taken to capture any unique details of a bridge. Three trained raters evaluated all bridges for Quality, Originality, and Structural Integrity using the pictures. Each rater went through detailed training that explained the use of the scales and provided benchmarks for the 1, 3, and 5 points for each scale. Coefficient alphas showed that these scales had acceptable reliability ($\alpha = .88$, .88, and .80 for Quality, Originality, and Structural Integrity, respectively).

To evaluate the bridges produced by the groups of participants, Hennessey and Amabile's (1988) consensual assessment technique was adapted to this task. Two psychologists examined the pictures of the bridges along with a list of considerations that should be taken into account in making evaluations of quality, originality, and structural integrity. Quality considerations examined the completeness, effectiveness, and the finished construction of the finished bridges. Originality considerations involved the novelty, surprise, and uniqueness of the design of each bridge. Structural integrity considerations included the stability and strength of the final designs. After looking through these the pictures, these psychologists were asked to choose three examples that reflected above average, average, and poor levels of performance for each of the three rating scales. Later,

the psychologists were asked to discuss and agree on the final examples for these benchmarks. See Figures 2, 3, and 4 for the rating scales with the established benchmark examples. A five-point anchored scale was then created using the benchmarks to anchor the 1 (poor), 3 (average), and 5 (above average) points.

Insert Figures 2, 3, and 4 About Here

Three raters were trained via explanations of each scale and the process by which the benchmarks were chosen. Using the established benchmark examples for, the trained raters reviewed the pictures of the completed bridges for this experiment with regard to quality, originality, and solving structural integrity, making all ratings for each scale before moving on to the next following Runco and Mraz' (1992) advice. Following Shrout and Fleiss's (1979) recommendations for statistics for estimating interrater reliability, the interrater reliabilities for the rating scales using Cronbach's α was .88 for quality, .88 for originality, and .80 for structural integrity. The scores across the three raters were averaged in order to calculate a final score that reflected the groups' task performance for each dimension.

Similarity indices

To test the hypothesis that the overall similarity of values between a leader and his or her followers predict performance, Pearson correlations between the values for leaders and their groups were calculated. To prepare for the remaining similarity indices, the standard deviation for each of the 21 values was calculated across all participants.

Differences between the leader and his or her group members were then calculated for values using the average of the group members for each and the values of the leader. To identify values that might be more discernible to participants, only those differences that were equal to or greater than one standard deviation using the entire sample were used in further calculations.

To test the hypotheses that large differences in all values would predict performance, all D^2's that were summed as long as each difference was larger than the standard deviation of the value across individuals. To identify values that were more and less important to each leader and each group, the average across all values for each of these entities and the standard deviation for each were calculated. Within the values for each entity, values equal to or greater than one standard deviation above the mean were designated as More Important and values equal to or below one standard deviation from the mean were designated as Less Important. Three sets of summed D^2 indices were then calculated for groups and for leaders using only the More Important values, using only the Less Important values, and using both the More and Less Important values.

To test the hypotheses involving prosocial versus individual values, the above calculations were performed again after first separating the 21 values into Prosocial values (designated as Social Morality, Cooperation, Family Cohesion, Human Rights, Social Infrastructure, Companionship, Friendship, Family advancement, Family stability, Social Norms, and Social Connections) and Individual values (designated as Amusement, Health, Status, Financial security, Freedom, Career Achievement, Explanation of being, Order/Control, Social Structure, and Realism), then indices were created for all large

differences and then for Leaders' and Groups' Important and Unimportant Prosocial and Individual values.

In summary, there are 15 different similarity indices (See Table 4 for a summary diagram of the complete set of similarity indices):

- correlation between leaders' and the groups' values (r-LM),
- perceived similarity to leader by group (PSim),
- total value differences (All D^2),
- total prosocial value differences (PS-D^2),
- total individual value differences (Ind-D^2),
- differences referenced to leaders' important, unimportant, and combined values (L Imp-D^2, L Unimp-D^2, & L-D^2),
- differences referenced to leaders' prosocial values (L-PS-D^2),
- differences referenced to leaders' individualistic values (L-Ind-D^2),
- differences referenced to the groups' important, unimportant, and combined values (G-Imp-D^2, G-Unimp-D^2, & G-D^2),
- differences referenced to the groups' prosocial values (G-PS-D^2),
- differences referenced to the groups' individualistic values (G-Ind-D^2).

Insert Table 4 About Here

Analyses

Cronbach's coefficient alpha was used to assess the reliabilities for each of the scales used in this study. Descriptive statistics and Pearson correlation coefficients were

calculated for the sets of similarity indices and the outcome measures (group process measures and objective task performance).

After centering all variables and creating interaction variables, the performance outcome measures were predicted using hierarchical multiple regression. The first block of predictors includes culture, a single difference index, and the interaction between these in addition to the number of people in the group. The second set of predictors includes leader behavior (either Initiating Structure or Consideration with separate analyses for each) and the interaction terms with predictors in the first block and the leader behavior. The third set of predictors includes leaders' characteristics as covariates: GPA (as a surrogate for intelligence), social skill, and previous supervisory experience. Since there is a slight association between group size and culture with larger groups more likely to be given the organic cultural manipulation and group size is known to be a central factor in group performance, group size is also an important covariant measure. Although incremental validity is provided on tables for these analyses, variance accounted for with respect to covariates and central variables is not interpreted. Rather, the ability of the covariates to compensate for the often deleterious effects of value dissimilarity is of interest.

Results

Bivariate correlations

Correlation of similarity indices. Table 5 shows descriptive statistics and bivariate correlations for the different similarity indices. Perceived similarity to the leader by group members is correlated only to similarity indices that are referenced to the groups' values. Specifically, perceived similarity is correlated to the similarity indices using both important and unimportant group values ($G\text{-}D^2$, $r = -.45$, $p = .02$) and to the index formed using the

groups' combined important and unimportant individual values (G-Ind-D^2, r = -.46, p = .02). The index using the correlation between leaders' and groups' values is not correlated with any of the other indices.

Insert Table 5 About Here

For the most part, the indices based on importance to the groups or to the leaders are uncorrelated, with only a few moderately correlated (*r's* in mid-.40's). Looking at the indices based on importance more closely, indices using important values are strongly correlated to their corresponding indices that combine both important and unimportant values, for group-referenced and leader-referenced indices (r = .90, p = .00 and r= .93, p = .00 respectively). Correlations show that indices separating prosocial and individual values and those that combine show similar patterns of correlations regardless of whether the indices are referenced to groups or leaders, to important or unimportant values, or when using all large differences in computation of the similarity indices (typical *r's* range from mid-.60's to .90's). Typically, these correlations are less when comparing similarity indices using either prosocial or individual values (these *r's* range from -.12 to .69, with most nonsignificant). Similarity indices using just the prosocial values do seem to be different from those that use just the individual values.

Correlations of leader characteristics, leader behaviors, and group task and process performance. The correlations between leader characteristics, leader behaviors, and group task and process performance can be seen in Table 6. The characteristics of the leader (GPA, supervisory experience, and social skills) show very little direct relationships with

group task or process performance. None are correlated with any of the performance outcomes or the leader behaviors of Initiating structure or Consideration; the only significant correlation, the correlation between supervisory experience and liking of the leader by the group is negative (r = -.39, p = .05).

Insert Table 6 About Here

The leadership behavior, Initiating Structure, is positively related to Consideration (r = .63, p = .00) and is also positively related to all of the cohesion dimensions (average r = .52). Surprisingly, Consideration is only marginally related to one of the dimensions of group task performance, Quality of construction (r= .47, p = .06), but is not correlated with the other group task performance ratings, nor to any of the group process measures, nor is it correlated with liking of the leader. Liking of the leader is related to team-member exchange (r = .51 p = .01) and to planning performance (average r= .58), but is not correlated to any of the measures of task performance nor does it correlate with any of the cohesion dimensions.

Cohesion is the only group process measure that is related to task performance. All four subdimensions and the total are positively related to quality of construction (average r= .50) and to originality of the design (average r= .48). Of the two conflict measures (emotional and task), only emotional conflict has a significant correlation with any of the other group process measures; emotional conflict and team-member exchange are negatively related (r = -.43, p = .03). The two conflict measures are significantly and strongly related to each other (r = .91, p = .00). Team-member exchange is also positively related to all of the planning process performance (average r=.59).

Correlations of similarity indices and dependent variables. The correlations between similarity indices and dependent variables can be seen in Table 7. The correlation between leaders' and followers' values (r-LM) was positively correlated with all three measures of group task performance (Quality, $r = .63$, $p = .00$; Originality, $r = .66$, $p = .00$; Structural integrity, $r = .49$, $p = .01$). Perceived similarity to the leader was correlated with both of the leadership behaviors (Initiating structure, $r = .77$, $p = .00$; Consideration, $r = .47$, $p = .01$), and three of the four subdimensions of cohesion as well as the total cohesion score (average $r = .47$). L Imp-D^2 was marginally related ($p \leq .06$) to Planning Adaptation ($r = .38$, $p = .05$) and to the total planning score ($r = .39$, $p = .06$). G Unimp-D^2 was negatively and marginally related to task conflict ($r = -.39$, $p = .05$). Most of the similarity indices were not correlated with leader behaviors or with any measure of group performance.

Insert Table 7 About Here

Hypothesis 1: The groups' liking for their leader is related to leader-member differences. Liking and D^2-based indices should be negatively correlated, while liking should be positively correlated with perceived similarity and leader-member value correlations. Strangely, r-LM was *negatively* related to liking of the leader by the group ($r = -.43$, $p = .03$) as well as with procedural justice ($r = -.43$, $p = .03$). Liking was not correlated with any of the other difference indices, including perceived similarity although it was correlated with LMX ($r = .49$, $p = .01$). See Table 6 for correlations. Thus Hypothesis 1 is not supported.

Hypothesis 2: Similarity. The D^2-based indices were theorized to have a negative relationship with objective performance measures and the group process measures of

cohesion and TMX, but should show positive relationships with the measures of interactional justice, planning, and conflict. The perceived similarity and correlation-based indices should show the opposite relationships.

The similarity index based on all squared value differences between leaders and their groups (All-D^2) had no direct relationship to the group performance variables, but it was associated with performance variables through interactions with other predictor variables. Perceived similarity was predictive of task conflict (Table 17: $\beta = .78, p = .05$, controlling for IS) and TMX (Table 10: $\beta = -.66, p = .03$, controlling for Con), providing some degree of support for Hypothesis 1. The correlation-based similarity index was much more successful, although it was not always positively related to group performance. Having a group with a similar pattern of values to its leader was associated with an increase in task performance. All three measures, originality (Table 20: $\beta = .83, p = .00$, controlling for IS; Table 21: $\beta = .48, p = .04$, controlling for Con), Quality (Table 18: $\beta = .79, p = .01$, controlling for IS), and Structural integrity (Table 22: r-LM; $\beta = .68, p = .02$, controlling for Con) were strongly and directly related to leader-group correlation of values. However, this type of similarity was also associated with a decrease in some measures of group performance. Planning adaptability (Table 26: $\beta = -.56, p = .04$, controlling for IS; Table 27: $\beta = -.74, p = .04$, controlling for Con), TMX (Table 25: $\beta = -.71, p = .05$, controlling for Con), and perceptions of interactional justice (Table 23: $\beta = -.77, p = .00$, controlling for IS; Table 24: $\beta = -1.07, p = .00$, controlling for Con) were maximized when value similarity between leaders and groups were lower.

Hypothesis 3: Importance to leaders. The relationships between the index using values that are highly espoused by the leaders should have stronger relationships to the

objective and process measures than the index that used the values that are least espoused by the leaders. However, limiting the squared value differences to those that were important to leaders, unimportant to leaders, or to both produced similarity indices that were related only to the structural integrity of the model bridge. Limiting similarity calculations to the use of the important and unimportant values held by the leaders produced a better predictor of structural integrity (Table 48: $\beta = -.77, p = .01$, controlling for Con) than using only the leaders' important values (Table 52: $\beta = -.57, p = .05$, controlling for Con), although controlling for the leaders' Initiating structure behaviors instead of the leaders' Consideration towards their group ameliorated this drop in predictive power (Table 51: $\beta = -.79, p = .04$, controlling for IS).

Hypothesis 4: Importance to groups. The relationships between the index using values that are highly espoused by the groups should have stronger relationships to the objective and process measures than the index that used the values that are least espoused by the groups. This hypothesis received no support; none of the analyses showed a direct relationship between the similarity indices referenced to the groups' important and/or unimportant values.

Hypothesis 5: Prosocial vs. Individualistic Values. Indices using the subset of values that are prosocial in nature should have stronger relationships with the group process measures than the indices using Individualistic values and this effect should be more pronounced when considering the group process measures as compared to the objective measures of performance. Only the structural integrity of the model bridge had a direct relationship to the similarity index based on squared Prosocial value differences (Table 43: $\beta = -1.59, p = .05$). A similar relationship could be found when further limiting these

differences to those prosocial values that were either strongly or weakly held by the leader (Table 55: $\beta = -.47, p = .03$). None of the indices based on the individualistic values had a direct relationship to any of the group performance measures.

Hypothesis 6: Similarity x Culture. This hypothesis stated that greater dissimilarity in values will lead to decrements in task and process performance in organic cultures more than mechanistic cultures and increase the need for planning especially for groups receiving the organic cultural manipulation. Since the organic culture was coded as 1 and the mechanistic culture coded as 0, the interactions with the D^2-based indices and culture should show positive relationships with the planning measures and negative relationships with the task and remaining process measures. Only three of the similarity indices, All-D^2, G-Imp-D^2, and G-Unimp-D^2, interacted with culture to significantly predict any of the outcome measures. Increases in the leader-group differences based on all values was related with better quality product in the Organic groups as contrasted to the groups' bridges receiving the Mechanistic cultural manipulation (Table 33: $\beta = .57, p = .05$). Having leaders that were more different from their groups' important values also increased the quality of the bridges in the Organic culture over those in the Mechanistic culture (Table 61: $\beta = .89, p = .03$), but was associated with less original designs for the model bridge (Table 62: $\beta = -.78, p = .03$) and with decreases in the Organic groups' ability or need to adapt their plans (Table 64: $\beta = -1.90, p = .05$) and decreased the Organic groups' overall planning performance (Table 65: $\beta = -1.88, p = .05$), compared to increases in value differences for groups in the Mechanistic cultures. Group members reported having less attraction to the group task when leaders were more different based on the groups' unimportant values when they were in groups receiving

the Organic cultural manipulation (Table 67: $\beta = -.39, p = .05$). Therefore, this hypothesis received only limited support.

Hypothesis 7: Similarity x Leader behaviors. This hypothesis states that the interaction between Initiating structure and Similarity should be positively associated with task performance and planning performance, with stronger relationships shown between these interaction terms and planning performance. However, increases in Consideration when groups and leaders are more different from each other should be associated with losses in performance and these interaction terms should be negatively associated with task and process performance. (Of course, these relationships should be reversed in sign when using perceived similarity or the correlation-based index.)

Increasing both Consideration and the differences between leaders and their groups was associated with the groups producing less original models when the differences included all values (Table 34: Con x All-D^2; $\beta = -.64, p = .02$), individualistic values (Table 44: Con x Ind-D^2; $\beta = -.71, p = .05$), or the groups prosocial values (Table 69: Con x G-PS-D2; $\beta = -.60, p = .03$). Structural integrity of the model bridge was poorer if both Consideration and leader-group value differences across all values were high (Table 48: Con x L-All-D^2; $\beta = -.52, p = .04$) or when Initiating structure and leader-group value differences for the prosocial values were high (Table 43: IS x PS-D^2; $\beta = -1.51, p = .04$). Increases in TMX was seen when groups had leaders who showed more Initiating structure behaviors and when leader-group value differences were high for either the groups' important/unimportant values or for just their unimportant values (Table 56: IS x G-All-D^2; $\beta = 1.30, p = .03$; Table 66: IS x G-Unimp-D^2; $\beta = .86, p = .03$).

Planning performance of the group seemed to be more influenced by Initiating structure behaviors of the leader and value differences that were important or unimportant to the group. The ability or need for the group to adapt their plans was increased when Initiating structure and leader-group differences were increased for many of the similarity indices (Table 36: IS x All-D^2; $\beta = 1.11, p = .03$; Table 71: IS x G-PS-D^2; $\beta = 1.00, p = .04$; Table 57: IS x G-All-D^2; $\beta = 1.61, p = .01$; Table 46: IS x Ind-D^2; $\beta = 2.75, p = .04$; Table 11: IS x PSim; $\beta = -.62, p = .03$). Groups tended to plan in more depth with their leader showed more Initiating structure behaviors and when leader-group value differences were high for either the groups' important/unimportant values or for just their important/unimportant individualistic values (Table 58: IS x G-All-D^2; $\beta = 1.15, p = .03$; Table 74: IS x G-Ind-D^2; $\beta = .98, p = .03$). Total planning performance was increased when their leader showed more Initiating structure behaviors and when leader-group value differences were high for the groups' important/unimportant values (Table 59: IS x G-All-D^2; $\beta = 1.17, p = .04$).

The cohesion variables showed only minor associations with Leader behavior and Leader-group value similarity interactions. The groups' social cohesion was highest when the leader showed more Consideration to the group members and when either the pattern of values of leaders and groups were similar (Table 31: Con x r-LM; $\beta = .44, p = .04$) or when leaders and groups were similar in espoused Individualistic values (Table 77: IS x G-Ind-D^2; $\beta = -1.16, p = .02$). Group members reported being more attracted to their group when the leader showed more Consideration and when their leader and group were more similar in individualistic values (Table 76: Con x G-Ind-D^2; $\beta = .50, p = .05$).

The relationship between the interaction of Consideration and value similarity to predict group task performance was partially supported by these findings. No strong pattern of effects was seen, however, for process performance. The interaction between Initiating structure and value differences was related to planning performance as predicted for several of the difference indices. However, the hypothesized relationship to task performance or to the other process performance measures was found.

Hypothesis 8: Leader behaviors x Culture. This hypothesis states that the interaction between Initiating structure and Culture should be negatively associated with group performance, while Initiating structure will not have a direct influence on group performance. The interaction between Consideration and Culture was not thought to be significantly related to group performance, while Consideration was predicted to always be positively associated with group performance. Interactional justice decreased as Initiating structure behaviors increased, but only for the analyses involving the groups' individualistic values (Table 73: $\beta = -.79, p = .04$). TMX was lower when leaders showed more Initiating structure, but this relationship was only significant for the analysis using the similarity index based on the groups' unimportant values (Table 66: $\beta = -.72, p = .03$). None of the interaction terms between Initiating structure and culture predicted group performance.

Consideration was found to be strongly related to several aspects of group performance and Consideration often had a larger benefit on performance for groups receiving the Mechanistic cultural manipulation. Groups with leaders showing Consideration towards them tended to produce more original designs (Table 34: Con x Culture $\beta = -.70, p = .00$ using All-D^2; Table 8: Con x Culture $\beta = -.53, p = .04$ using PSim; Table 62: Con x Culture $\beta = -.85, p = .01$ using G-Imp-D^2; Table 72: Con x Culture $\beta = -.53, p = .03$ using

G-Ind-D^2; Table 69: Con x Culture $\beta = -.64, p = .00$ using G-PS-D^2; Table 44: Con x Culture $\beta = -.83, p = .00$ using Indiv-D^2; Table 47: Con x Culture $\beta = -.48, p = .04$ using L-Both-D^2; Table 50: Con x Culture $\beta = -.48, p = .03$ using L-Imp-D^2; Table 42: Con x Culture $\beta = -.70, p = .02$ using PS-D^2; Table 54: Con $\beta = .41, p = .05$ and Con x Culture $\beta = -.46, p = .02$, using L-PS-D^2; Table 21: Con $\beta = .57, p = .01$ and Con x Culture $\beta = -.58, p = .01$ using r-LM). Quality tended to increase as Consideration increased (Table 19: Con $\beta = .59, p = .02$ using r-LM; Table 49: Con $\beta = .50, p = .05$ using L-Imp-D^2; and Table 53: Con $\beta = .65, p = .05$ using L-Unimp-D^2), but was sometimes more beneficial to groups receiving the Mechanistic cultural manipulation (Table 61: Con x Culture $\beta = -.80, p = .01$ using G-Imp-D^2 and Table 68: Con x Culture $\beta = -.49, p = .03$ using G-PS-D^2).

Of all the group process measures, only cohesiveness measures were related to Consideration or to the interaction between Consideration and Culture. Consideration was found to be positively related to group social cohesion, but was also increased Consideration was associated with higher social cohesion when groups also received the Mechanistic cultural manipulation for the two similarity indices that used all values in the formula (Table 40: Con $\beta = .49, p = .04$ and Con x Culture $\beta = -.55, p = .02$, using All-D^2; Table 31: Con $\beta = .68, p = .01$ and Con x Culture $\beta = -.77, p = .01$ using r-LM). A similar pattern was found for Consideration, culture, and group task cohesion (Table 39: Con $\beta = .87, p = .00$ and Con x Culture $\beta = -.32, p = .03$ using All-D^2; Table 30: Con $\beta = .98, p = .00$ and Con x Culture $\beta = -.38, p = .04$, using r-LM; Table 14: Con $\beta = .83, p = .00$ and Con x Culture $\beta = -.51, p = .02$, using PSim) and with Total cohesion (Table 16: Con $\beta = .67, p = .00$ and Con x Culture $\beta = -.45, p = .02$ using PSim; Table 41: Con $\beta = .84, p = .00$ and Con x

Culture $\beta = -.36, p = .05$ using All-D^2; and Table 32: Con $\beta = .93, p = .00$ and Con x Culture $\beta = -.45, p = .04$ using r-LM). Perceived similarity was only associated with increased group social cohesion for groups in the mechanistic cultures (Table 15: Con x Culture $\beta = -.49, p = .02$). The individual-level measures of cohesiveness was for the most part positively related to Consideration only (for Individual Social Attraction, see Table 13: Con $\beta = .58, p = .02$ using PSim; Table 29: Con $\beta = .74, p = .01$ using r-LM; Table 38: Con $\beta = .79, p = .00$ using All-D^2; and Table 76: Con $\beta = .82, p = .00$ and Con x Culture $\beta = -.37, p = .04$ using G-Ind-D^2. For Individual Attraction to task see Table 12: Con $\beta = .70, p = .01$ using PSim; Table 28: Con $\beta = .89, p = .00$ using r-LM; Table 37: Con $\beta = .82, p = .00$ using All-D^2; and Table 67: Con $\beta = .63, p = .00$ using G-Unimp-D^2).

Hypothesis 9: Similarity x Leader behaviors x Cult.. This set of hypotheses involved the prediction that Consideration would be helpful overall, but less beneficial for **high** leader-member similarity groups in organic cultures. Initiating structure was predicted to be more beneficial for less similar groups in organic cultures than for less similar groups in mechanistic cultures. Increased Initiating structure should be related to decrements in performance for very similar groups, although organic cultures should ameliorate this problem somewhat since the need for Initiating structure should be greater. To test these hypotheses, the interactions that were significant from the hierarchical regression analyses were subjected to additional analyses using the groups from each culture separately to find the overall pattern of relationships producing the significant interaction terms.

The three-way interaction between Consideration, Culture, and the squared differences in values between leaders and groups was a significant predictor of all three measures of group task performance (Table 33: Quality $\beta = -.56, p = .04$; Table 34:

Originality β = -.58, p = .02; and Table 35: Structural integrity β = -.72, p = .02). Most of the same pattern can be found for the three-way interaction between Consideration, Culture, and the correlation between the values held by leaders and groups (Table 19: Quality β = -.46, p = .04 and Table 21: Originality β = -.47, p = .02), the three-way interaction between Consideration, Culture, and the leader-group value similarity based on the groups' important values (Table 61: Quality β = -.86, p = .01 and Table 63: Structural integrity β = -.82, p = .03). Only structural integrity was related to the three-way interactions between Consideration, Culture, and the leader-group similarity on individualistic values (Table 45: β = -.88, p = .03), the leaders' important and unimportant values (Table 48: β = -.95, p = .00), the leaders' important values (Table 52: β = -.71, p = .01), and the leaders' prosocial values (Table 55: β = -.67, p = .00). For these interactions, low Consideration shown to dissimilar groups receiving the Mechanistic cultural manipulation is associated with a loss in task performance, while low Consideration does not appear to affect the performance of groups that hold similar values to the leader. Although not often significant different, there is a tendency for dissimilar groups that receive the Organic cultural tend to perform better when the leader does not show much Consideration towards them.

There is only one significant three-way interaction between Initiating structure, Culture, and a difference index (L-Imp-D^2) that is related to group task performance (Table 51: IS x Culture x L-Imp-D2; β = -1.05, p = .04). The remaining seven significant interactions involving Initiating structure are only predictive of group process performance, mainly cohesiveness measures. Of these, the three-way interaction between Initiating structure, Culture, and the differences using the individualistic values of the group is the strongest predictor of the cohesiveness measures. It is predictive of the individuals attraction

to task (Table 75: $\beta = 1.18, p = .04$), group social cohesion (Table 77: $\beta = 1.20, p = .04$), and total cohesion (Table 78: $\beta = 1.23, p = .04$). A similar pattern can be seen between the three-way interaction between Initiating structure, Culture, and differences based on the groups' important and unimportant values which predicts group task cohesion (Table 60: $\beta = 1.03, p = .05$). Differences based on the groups' prosocial values interact with Initiating structure and culture to predict planning adaptability (Table 71: $\beta = 1.01, p = .00$) and TMX (Table 70: $\beta = .89, p = .01$). TMX can also be explained using the three-way interaction between Initiating structure, Culture, and perceived similarity (Table 9: $\beta = -.67, p = .05$). For these interactions, groups that are dissimilar to the values of the leader (or visa versa) tend to have process loss when the leader shows more Initiating structure, but only when these groups also receive the Organic cultural manipulation.

Discussion

Limitations of the study

Before considering the implications of the findings, the limitations of this study must be examined. First, issues of power should be discussed. With only 26 groups, the small size of the study combined with the natural variability of the distribution of values across the participants somewhat limited the power available to test some effects of some of the difference indices. For example, when looking at the prosocial and individualistic subsets and at the same time including only those prosocial/individualistic values that were important and/or unimportant to the group or leader in included fewer differences in the calculation of the indices. Since the difference had to meet the criteria of being greater than

the standard deviation of the difference across participants, and hence more leader-group differences were more likely to be perceivable, this further limited the inclusion of leader-group value differences in the calculation of the indices. As the selection of value differences to be included in these indices became more restrictive, more groups were left with zeros, limiting the power. Increasing the number of groups, providing that the values remained distributed approximately normal across these participants, should increase the number of differences that met these criteria for the subsets of values. Increasing the number of groups in addition to using alternative statistical methods (e.g., Edwards' polynomial regression technique; Edwards, 2002) perhaps in addition to multiple regression using difference indices, could address some of these methodological issues.

Second, issues of replication should be discussed. The reliability of difference indices has been noted (Edwards, 2002) as a potential problem. Difference scores are often less reliable than their component measures (Johns, 1981), although difference scores are not necessarily unreliable themselves (Rogosa & Willett, 1983; Zimmerman & Williams, 1982). Replication of the effects seen in this study would be difficult because leaders were randomly assigned to the groups; thus, different leaders chosen for the groups would have lead to different leader-group value differences and potentially a different pattern of effects. Using another values survey developed around an alternative taxonomy of values or a different method of measurement (e.g., the Schwarz Value Inventory, a more direct measure of values) could produce distinctive patterns of effects with dissimilar implications. Assigning leaders based on scores from the values measure or through the use of trained confederates using scripts that are developed around a selection of values, or using an

alternative measure of values could each provide an alternative test of the hypotheses in the study.

Third, issues of external validity limit the extent to which the conclusions of this study can be applied in other situations. As a laboratory study the results may not, of course, necessarily transfer to all real-world settings since those situations will not have all the characteristics of real life (Campbell, 1986; Gordan, Slade, & Schmitt, 1986). However, several researchers (e.g., Locke, 1986; Henshel, 1980; Brown & Lord, 1999; Hunt, Boal, & Dodge, 1999; & Wofford, 1999) argue, external validity criticisms often miss a major rationale of laboratory research. The more simplistic setting in the laboratory can reveal key processes and relationships. Laboratory research does not show us how the world works in all its complexity, but illustrates what could occur under certain conditions and what is essential is that certain characteristics of the laboratory setting match some aspects of the real world (Mook, 1983). In addition, effects found in the laboratory may get stronger in more personally involving real life situations (Mook, 1983). Nevertheless, the discussion about the ability to generalize should be addressed. Locke (1986) found persuasive evidence that laboratory research using undergraduates often produced results that replicated in field studies conducted in world settings in organizations.

Fourth, the scores for the group process measures and the leadership behaviors share a common source of variance, since group members completed both sets of measures. Although objective performance ratings provide an alternative source for performance estimation, a potential for common-source bias remains for the process measure. This could be problematic since the leader behaviors are used as moderators in this study. When Dionne, Yammarino, Atwater, and James (2002) investigated the ability of leader behaviors

using Podsakoff and colleagues' measure of leader contingent and noncontingent reward and punishment behaviors (Podsakoff, Todor, & Skov, 1982; Podsakoff, Todor, Grover, & Huber, 1984), the use of three separate sources to report about leadership, substitutes, and outcomes rather than two eliminated the significant, joint effects and moderation effect disappear. Therefore, caution should be used when interpreting the meaning of interactions involving the Consideration and Initiating structure measures when employed to predict group process performance.

Nevertheless, some clear issues in external validity remain. The bridge-building task, while complex enough that the groups would have to combine their efforts to complete the task in the allotted time, was a simple task. Real world performance tasks would undoubtedly be more complex. Caution must be used when extrapolating conclusions to different types of tasks, such as decision-making or norm formation (Baron, 1997; Kanfer, 1990). The measures of process performance (e.g., cohesion, planning, TMX, and conflict) were all self-report using individual team members' perceptions. This study faces the same limitations as any study that uses self-report measures. Future research should focus on adding to the methodological diversity employed in both this and other studies investigating similar issues. For example, observational techniques (Weingart, 1992; Weldon, Jehn, & Pradhan, 1991) could be used to validate the self-report approach used here. Furthermore, additional group processes should be investigated as well since those used in the study were only a subsection of possible processes.

Perhaps most important is the issue of temporary groups. The groups in this study are not familiar with each other as they worked on the task, they have not established stable patterns of interaction and group norms, they are not embedded in an organizational system,

nor do they face consequences for their performance. It may be difficult to extend the implications of this study to real world teams. Newer theories of the relationship between group process and performance include time as an essential component of the theory (e.g., Harrison, Mohammed, McGrath, Florey, & Vanderstoep, 2003; Marks, Mathieu, & Zaccaro, 2001). McGrath, Arrow, Gruenfeld, Hollingshead, and O'Conner (1993) have named two types of errors produced by situations such as these. Type I temporal errors are made when extending conclusions from ad hoc teams from a single laboratory session when the relationships would fade over time. Type II temporal errors are made when longer lasting processes that would exist in more permanent groups that would not emerge in ad hoc groups.

Modern organizations do use temporary workgroups in structuring tasks, for example, short-term project teams that work on a specific problem (Uhl-Bien & Graen, 1998). These relatively brief team members are not necessarily familiar with each other and do not have a long-term future as a team. However, these team members undoubtedly do have real consequences for nonperformance and it is more probable that they are working on a project that interests them. The conclusions of the current study can still be applied, albeit tenuously, to groups. Whereas the effects of differences in demographics are thought to be less on interpersonal interaction, given time to find commonality on underlying attributes that predict behavior, the effects produced by differences in values is thought to increase over time (Hamm, 2000).

Summary of results

Although results were not consistent across all of the indices, the hypotheses addressed by this study tended to receive at least some support. In addition to problems in power addressed above, a ceiling effect may have been produced by the tendency of group members to report higher ratings of satisfaction simply by participating within a workgroup (Paulus, Dzindolet, Poletes, & Camacho, 1993; Paulus, Larey, & Ortega, 1995), thereby limiting any negative effects of dissimilarity. Controlling for leader behaviors and characteristics of leaders often ameliorated the simple effects of dissimilarity. Participants reported liking the task and were willing to repeat the experiment when asked in an exit survey. In addition, a large subset of participants took the time to visit the other groups after the sessions were concluded to view the other bridges and some asked to see the pictures taken of previous bridges.

Implications of the current study

Even bearing these caveats in mind, however, the present study has some noteworthy implications for the motivation behind decisions that followers make to follow and perform for leaders. The study gives partial support to the idea that since there are myriad bases that people use to make similarity judgments, the conceptualization and operational definitions of interpersonal similarity should be broad to allow different information to contribute to similarity appraisals. The broader, more generally defined difference indices using all 21 values were the more predictive of performance. Such indices would capture the most information about value similarities. Both the pattern of similarities and the magnitude of similarities between leaders and groups were related to performance, suggesting that these two forms of information contribute to similarity judgments. The

relative importance of the value, to either leaders or groups, was important to the explanation of group performance to the extent that similarity on more strongly held values were more associated with increased performance compared with similarity on values that were not so strongly espoused. However, it appeared that groups and leaders took both types of information into account.

The perspective of the person also plays a part in how leader-group value similarity contributes to performance. When looking at similarity on values that were important or unimportant to the group, concentrating on similarity in individualistic values somewhat increased the relationship between leader-group similarity and group performance. Since people who strongly espouse individualistic values tend to believe that in universal values, values that must be shared by everyone in the group, similarity in these values may prevent conflict over the appropriateness of values that the group or leader should show. In addition, individualistic values provide information about rights and privileges and what is permissible for one person to do. Individualistic value similarity may aid in the delineation of roles in the group and provide information about when people can take initiative. For example, people who are strongly individualistic may act alone without asking for much input from others, which may frustrate or offend those who do not espouse these values. As such, people may use information provided by individualistic value similarity to judge the appropriateness of their behavior. The role of group member may increase the saliency of this information and similarity in individualistic values may allow members to coordinate with their leader more rapidly and accurately, leading to an increase in performance.

In contrast, when taking into account only those values that were important or unimportant to the leader, the relationship between value similarity and group performance

increased when value similarity was based on prosocial values. Prosocial values, ethical behavior, and leadership performance have been shown to be interrelated (Bass & Steidlmeier, 1999; Conger and Kanungo, 1998; House, 1977; Mumford, Gessner, Connelly, O'Connor, & Clifton, 1993; Mumford, Helton, Decker, Connelly, Van Doorn, 2003). Leaders who hold prosocial values dear may take more time to developing consensus and take more efforts to ensure satisfaction of members equally than would leaders who do not hold these values. If such a leader were faced with a team of individualistic followers, he or she may frustrate followers who may perceive the leader as unfair or ineffective. Conversely, an individualistic leader may tend to act without developing consensus and so offend a group who endorse prosocial values and the benefit and importance of the group.

However, leader-group value dissimilarity effects were rarely directly related to performance, especially when the social skills, intelligence, and supervisory experience of the leader were taken into account. The results of this study also imply that effects of leader-group differences on performance can be moderated by both leader behaviors and culture. For example, leaders and groups tended not to plan or adapt their plans when groups were both very dissimilar from their leaders and when their leaders did not give personal attention to followers. As long as the leader shows enough consideration towards the group overall groups that were very dissimilar reported having approximately the same amount of planning as did groups who were similar to the leader. In addition, leader-group value similarity seemed to act in a analogous manner to consideration in that when similarity was high, the leader provide greater structure to the task, increasing performance. When leaders and groups differed in espoused values, increasing structure tended to decrease performance. However, the relationship between the considerations shown by the leaders towards

dissimilar followers did not always lead to prevention of production loss. Although consideration behaviors could become more important when leaders and groups held different values, this type of leader behaviors could also potentially take more time away from the task and even increase perceived differences, at least temporarily, if commonality cannot be found quickly or when large differences in salient values exist. These results extend the presumption that more consideration will be always increase group performance. Leader-group dissimilarity appeared to be more manageable in the mechanistic culture when the culture provided more structure and more impetus towards task performance. Consideration could have a deleterious effect on group performance, depending on the amount of leader-group value dissimilarity and the structure of the culture.

This study deepens the understanding of how value similarity can influence group performance. Previous studies have concentrated on leader-member similarity without consideration towards group-level effects. As such, it provides hints of potential limitations and contextual factors that may change how followers respond to leaders and potential trade-offs and cross-level effects that should be taken into contemplated while thinking about the motivation underlying why people follow leaders.

Practical applications

With the caveat that this is a small N study and replication is needed before making extensive extrapolations to real world settings, some very tentative implications can be suggested. While some theorists have proposed that diversity is always beneficial to organizations and team performance, the empirical results does not show that diverse teams necessarily perform better, feel more committed to their organizations, or experience higher

levels of satisfaction (Williams & O'Reilly, 1998; Millikin & Martins, 1996; Jackson, May & Whitney, 1995). Instead, diversity can increase conflict and employee turnover as well as more creativity and innovation (Jehn, Northcraft, and Neale, 1999; Williams and O'Reilly, 1998). Failure to respond effectively to diversity can increase the stress level of both the leader and his or her followers (Andre, 1995; Offermann & Phan, 2002). The effects of diversity of a team can be extrapolated to apply to diversity between leader and his or her group as well. Instead of selecting leaders who match the entire team, leaders who are similar to the average team member can effectively lead the team.

However, rather than looking at the diversity in terms of shared values between leaders and followers alone, situational characteristics such as the culture and the focus of the task must be taken into account as well. The right application of leader behaviors such as Consideration or Initiating structure may be able to compensate for value differences between leaders and groups. Additionally, the results of this study would suggest that leaders could be selected to match the average group member without sacrificing the diversity of the group if so desired. Of course other types of leadership behaviors (e.g., transformational or charismatic leadership) may have their own unique effects on leader-group value differences as well (Mumford, Dansereau, & Yammarino, 2000). If leaders are able to change styles depending on task, culture, or their fit to their teams' espoused values, leaders who have larger behavioral repertoires with the ability to choose appropriate leadership behaviors for particular situations, are more likely to influence group performance than leaders who have a smaller repertoire or who apply behaviors indiscriminately (Hooijberg & Quinn, 1992), thereby increasing the need for social skills, problem solving, creativity, and system awareness, among other characteristics of the leader (Mumford, Marks, Connelly, Zaccaro,

& Reiter-Palmon, 2000). Flexibility on the part of the leader to apply these talents would allow leaders to use the full capabilities of all his or her employees, allowing organizations to keep or increase the diversity of work teams, allowing team performance to benefit from the different perspectives, information, and capacities inherent in diverse teams leverage benefits from diversity if possible while limiting the negative effects of leader-group differences.

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Table 1: Percentage of Group sizes in each culture

	Culture		
Group Size	Mechanistic	Organic	Total
3	11.5%	11.5%	23.1%
4	30.8%	0.0%	30.8%
5	3.8%	34.6%	38.5%
6	0.0%	7.7%	7.7%
Total	46.2%	53.8%	100%

Table 2: Values Definitions

Construct	Reliability (Coefficient α)	Description
Amusement	.53	Leisure activities that provide excitement and distraction.
Career Achievement	.60	Developing oneself within a job or profession.
Companionship	.54	Sharing aspects of daily life with another person.
Cooperation	.43	Working for the welfare of the group rather than for the individual.
Explanation of Being	.62	Ethics/religion explain human existence.
Family Advancement	.50	Concern for social position, reputation, and heritage of family.
Family Cohesion	.65	Giving one's children support, resources and guidance so they can reach their potential.
Family Stability	.76	Ensuring the well being of one's family and family relationships.
Financial Security	.72	Meeting financial needs.
Freedom	.44	No interference with individual freedom and choices.
Friendship	.53	Making friendships to give and receive social support.
Health	.42	Leisure activities that promote health, calmness and well-being.
Human Rights	.49	Protect basic rights and support people in need.
Order/Control	.61	Preference for order, regulation, control and direction
Realism	.54	Practicality, recognition of limits.
Social Connections	.52	Making friendships for personal gain or practical benefits.
Social Infrastructure	.40	Building physical structures for future is important.
Social Morality	.64	Ethics emphasize contributing to society and serving as a good role model.
Social Norms	.72	Ethics are a source of guidance for how to live appropriately and be accepted by others.
Social Structure	.44	Interactions with others are limited to own social class and job level and should be predictable.
Status	.73	One's importance in the world and recognition by others.

Table 3: Summary of leader behavior and group process measures

Ratings of leaders by group members	
LBDQ	Initiating structure Consideration
LMX-7	LMX
Liking	Liking of leader by member
Perceived similarity	Perceived similarity of the leader to the group member
Ratings of group process by group members	
Interactional justice	Interactional justice
TMX	Team-member exchange quality
Planning	Adaptability Situatedness Depth of planning Total planning performance
GEQ	Group Integration-Task (GrpInt-T) Group Integration-Social (GrpInt-T) Individual Attraction to the Group-Task (IndAtt-T) Individual Attraction to the Group-Social (IndAtt-S) Total cohesiveness

Table 4: Difference Indices

Importance	Referenced to Group		
of Values	Prosocial	Individual	Combined
Important	——	——	G-Imp-D^2
Unimportant	——	——	G-Unimp-D^2
Both	G-PS-D^2	G-Ind-D^2	G-All-D^2

Importance	Referenced to Leader		
of Values	Prosocial	Individual	Combined
Important	——	——	L-Imp-D^2
Unimportant	——	——	L-Unimp-D^2
Both	L-PS-D^2	L-Ind-D^2	L-All-D^2

Importance	All large Differences		
of Values	Prosocial	Prosocial	Prosocial
Important	——	——	——
Unimportant	——	——	——
Both	PS-D^2	PS-D^2	PS-D^2

Correlation between leaders' and followers' values	r-LM
Perceived similarity to leader by followers	PSim

Table 5: Descriptive statistics for similarity indices

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
r-LM	.56	.19	1.00†	.3	-.25	-.31	-.17	-.12	.01	-.09	-.05	-.09	-.17	.11	-.12	-.07	-.13
PSim	15.25	2.33		1.00†	-.36	-.2	-.33	-.14	.16	-.04	-.12	.05	-.26	-.35	-.45*	-.31	-.46*
All D^2	.98	.59			1.00*	.93†	.95†	.50†	.3	.51†	.29	.52†	.89†	-.09	.88†	.86†	.70†
PS-D^2	.47	.34				1.00†	.89†	.49†	.3	.46*	.09	.62†	.85†	-.2	.80†	.82†	.60†
Ind-D^2	2.58	3.08					1.00†	.27	.37	.28	.07	.36	.95†	-.16	.91†	.82†	.77†
L-Imp-D^2	.41	.33						1.00†	-.21	.93†	.75†	.76†	.13	.2	.25	.36	.08
L-Unimp- D^2	.15	.13							1.00†	.12	-.03	.22	.36	-.27	.25	.27	.18
L-D^2	.55	.33								1.00†	.78†	.84†	.14	.12	.22	.37	.03
L-PS-D^2	.31	.19									1.00†	.32	-.02	.25	.08	.28	-.12
L-Ind-D^2	.24	.22										1.00†	.24	-.03	.27	.32	.15
G-Imp-D^2	.22	.33											1.00†	-.27	.90†	.83†	.74†
G-Unimp-D^2	.12	.15												1.00†	.16	.01	.24
G-D^2	.33	.32													1.00†	.85†	.89†
G-PS-D^2	.2	.17														1.00†	.52†
G-Ind-D^2	.13	.19															1.00†

Note: * $p \leq .05$. † $p \leq .01$.

Table 6: Descriptive statistics for leader characteristics, leadership behaviors, and group performance measures

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
Leader attributes															
GPA	3.02	.53	1.00†	.09	.08	.17	.16	.03	.17	-.08	-.06	.01	-.05	-.18	-.03
Sup. Exp	.32	.48		1.00†	.11	.16	.23	-.14	-.39*	.08	.15	.10	-.16	-.27	-.26
Social Skill	283.23	16.31			1.00†	.31	.32	.09	-.10	.20	.07	-.10	.21	.14	-.12
Leader behaviors															
Initiating Structure	34.03	5.63				1.00†	.63†	-.29	-.23	.21	.25	-.01	-.07	-.12	.01
Consideration	39.69	4.44					1.00†	-.13	-.25	.37	.26	.12	.01	-.05	-.20
Other															
Interactional justice	25.03	2.99						1.00†	.73†	-.18	-.42*	-.13	.61†	.62†	.44*
Liking for leader	12.26	1.57							1.00†	-.10	-.20	.06	.51†	.54†	.65†
Group task performance															
Quality	3.10	1.02								1.00†	.77†	.70†	-.08	-.20	-.02
Original.	2.85	1.23									1.00†	.58	-.25	-.28	-.05
Struct integrity	3.09	1.15										1.00†	-.03	-.21	.06
Group process performance															
TMX	53.55	7.02											1.00†	.79†	.48†
Planning Adapt.	32.45	3.21												1.00†	.61†
Planning Situating	29.48	5.16													1.00†
Planning Depth	19.55	4.20													
Total Planning	81.49	11.20													
IndAtt-T	15.61	3.72													
IndAtt-S	11.06	2.13													
GrpInt-T	18.11	2.54													
GrpInt-T	13.46	2.26													
Total Cohesion	58.24	9.62													
Task Conflict	7.12	2.50													
Emot. Conflict	7.73	3.54													

Note: * p≤ .05. † p≤ .01.

Table 7: Descriptive statistics for leader characteristics, leadership behaviors, and group performance measures (Con't)

	13	14	15	16	17	18	19	20	21	22
Leader attributes										
GPA	-.03	.01	-.06	.24	.19	.09	.11	.18	-.36	-.36
Sup. Exp	-.26	-.23	-.29	.18	.17	.29	.21	.23	.07	.13
Social Skill	-.12	.16	.05	.32	.10	.23	.10	.23	-.22	-.08
Leader behaviors										
Initiating Structure	.01	-.02	-.04	.49†	.52†	.58†	.46*	.57†	-.05	.02
Consideration	-.20	-.16	-.17	.69†	.68†	.83†	.53†	.76†	-.17	-.11
Other										
Interactional justice	.44*	.47*	.56†	-.17	-.22	-.28	-.11	-.21	-.23	-.35
Liking for leader	.65†	.56†	.66†	-.23	-.22	-.23	-.09	-.22	-.14	-.34
Group task performance										
Quality	-.02	-.08	-.10	.49†	.52†	.50†	.46*	.54†	-.02	-.02
Original.	-.05	-.16	-.16	.45*	.43*	.51†	.49†	.52†	.06	.05
Struct integrity	.06	.05	-.01	.31	.37	.34	.29	.36	-.09	-.20
Group process performance										
TMX	.48†	.46*	.62†	-.08	-.12	-.23	-.25	-.18	-.35	-.43*
Planning Adapt.	.61†	.61†	.80†	-.15	-.18	-.29	-.32	-.25	-.32	-.35
Planning Situating	1.00†	.78†	.93†	-.25	-.21	-.35	-.08	-.25	-.06	-.24
Planning Depth		1.00†	.91†	-.19	-.11	-.33	-.16	-.22	.08	-.05
Total Planning			1.00†	-.23	-.19	-.37	-.19	-.27	-.09	-.23
IndAtt-T				1.00†	.85†	.78†	.64†	.93†	-.33	-.34
IndAtt-S					1.00†	.77†	.73†	.93†	-.02	-.03
GrpInt-T						1.00†	.71†	.90†	-.09	-.04
GrpInt-T							1.00†	.83†	.01	-.01
Total Cohesion								1.00†	-.15	-.15
Task Conflict									1.00†	.91†
Emot. Conflict										1.00†

Note: * p≤ .05. † p≤ .01.

Table 8: Correlations between difference indices and leader characteristics, leadership behaviors, and group performance measures

Difference Index	GPA	Superv. Exp	Social skill	Initiating Structure	Consid.	Proc. Justice	Liking for leader	Quality	Original.	Struct. integrity	TMX	Planning Adapt	Planning Situating	Planning Depth	Total Planning
r-LM	-.13	.17	.46*	.24	.15	-.43*	-.43*	.63†	.66†	.49†	-.17	-.26	-.31	-.08	-.24
PSim	.12	.10	.22	.76†	.47†	-.25	-.16	.26	.34	.15	-.16	-.26	-.01	.02	-.07
All D^2	-.14	-.29	-.19	-.29	-.05	-.01	-.02	-.08	-.16	-.10	-.16	.09	-.06	-.06	-.03
PS-D^2	-.09	-.24	-.22	-.12	-.01	-.03	.03	-.08	-.14	-.07	-.13	.10	-.04	-.10	-.02
Ind-D^2	-.29	-.19	-.18	-.21	.03	-.14	-.20	.03	-.09	-.07	-.22	-.05	-.19	-.24	-.19
L-Imp-D^2	.18	-.14	-.12	-.16	-.20	.08	.22	-.16	-.04	-.12	-.02	.38	.34	.31	.38
L-Unimp-D^2	-.15	-.04	-.32	.08	.08	-.17	-.19	.08	.16	.29	-.09	-.31	-.20	-.29	-.29
L-D^2	.20	-.14	-.24	-.11	-.19	.04	.18	-.14	.04	.00	-.05	.27	.30	.26	.31
L-PS-D^2	.30	-.10	-.02	-.18	-.14	.17	.15	-.13	-.01	-.07	-.05	.20	.33	.32	.33
L-Ind-D^2	.05	-.12	-.34	-.01	-.16	-.10	.15	-.10	.07	.07	-.03	.23	.17	.11	.19
G-Imp-D^2	-.33	-.26	-.06	-.19	.16	-.05	-.18	.06	-.12	-.05	-.12	.00	-.19	-.15	-.15
G-Unimp-D^2	.37	.14	.28	-.12	-.06	-.07	.00	-.09	.00	-.09	-.01	.00	-.13	-.15	-.12
G-D^2	-.12	-.21	.04	-.26	.10	-.08	-.14	.03	-.12	-.08	-.11	.00	-.27	-.25	-.22
G-PS-D^2	.11	-.13	.04	-.17	.15	-.02	-.11	.10	.00	.10	-.19	-.01	-.13	-.07	-.09
G-Ind-D^2	-.29	-.22	.02	-.29	.02	-.11	-.13	-.04	-.20	-.21	-.02	.00	-.33	-.34	-.28

Note: * $p \leq .05$. † $p \leq .01$.

Table 9: Correlations between difference indices and leader characteristics, leadership behaviors, and group performance measures (con't)

Difference Index	IndAtt-T	IndAtt-S	GrpInt-T	GrpInt-T	Total Cohesion	Task Conflict	Emot. Conflict
r-LM	.27	.25	.29	.14	.27	.01	.15
PSim	.29	.42*	.47†	.50†	.45*	.18	.22
All D^2	-.13	.02	-.05	.04	-.05	-.03	.07
PS-D^2	-.03	.14	.02	.19	.07	-.04	.03
Ind-D^2	-.06	.08	.05	.14	.04	.05	.17
L-Imp-D^2	-.27	-.18	-.27	-.27	-.28	-.15	-.05
L-Unimp-D^2	.12	.23	.26	.34	.25	-.05	-.06
L-D^2	-.22	-.10	-.18	-.17	-.20	-.18	-.09
L-PS-D^2	-.19	-.18	-.23	-.19	-.22	-.17	-.11
L-Ind-D^2	-.18	.00	-.08	-.09	-.11	-.12	-.04
G-Imp-D^2	.08	.20	.12	.24	.16	.02	.11
G-Unimp-D^2	-.02	-.34	-.07	-.39	-.19	-.39*	-.36
G-D^2	.05	.05	.09	.06	.07	-.17	-.05
G-PS-D^2	.20	.26	.15	.27	.24	-.19	-.12
G-Ind-D^2	-.10	-.15	.01	-.14	-.10	-.10	.03

Note: * $p \leq .05$. † $p \leq .01$.

Table 10: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.98	.34	—	1.01	.33	—	.13	.90
Group Size	.27	1.16	.26	.26	1.18	.25	.27	1.10	.29
Culture	.07	.29	.77	.19	.90	.38	.10	.39	.70
PSimr	.42	1.94	.07	.32	1.48	.16	.28	1.18	.26
Culture x PSim	.04	.19	.85	.21	1.09	.29	.21	.96	.35
$\Delta R^2 =$	.20								
Consid				.21	.91	.37	.19	.75	.47
Con x Cult.				-.52	-2.50	.02	-.53	-2.32	.04
Con x PSim				.10	.42	.68	.14	.51	.62
Con x Cult. x PSim				-.25	-1.06	.30	-.28	-1.05	.31
$\Delta R^2 =$	.34*								
GPA							-.15	-.74	.47
Social Skill							.08	.36	.73
Supervisory Exp.							.00	-.02	.98
$\Delta R^2 =$	.02								
Model $R^2 =$	.20			.54			.56		
Adjusted $R^2 =$	.05			.32			.21		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 11: Hierarchical moderated regression analysis for Culture, Perceived similarity, Initiating structure, and Leader characteristics predicting TMX.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.27	.00	—	6.28	.00	—	.51	.62
Group Size	.09	.35	.73	.19	.76	.46	.30	1.17	.26
Culture	-.24	-.90	.38	-.09	-.31	.76	-.29	-.93	.37
PSim	-.25	-1.07	.30	-.52	-1.51	.15	-.67	-1.91	.08
Culture x PSim	.17	.74	.46	.33	1.04	.31	.13	.33	.74
$\Delta R^2 =$	.08								
IS				-.13	-.37	.71	-.06	-.18	.86
IS x Cult.				-.45	-1.40	.18	-.30	-.79	.44
IS x PSim				-.27	-1.08	.29	-.26	-1.05	.31
IS x Cult. x PSim				-.62	-2.13	.05	-.67	-2.13	.05
$\Delta R^2 =$	.29								
GPA							-.23	-1.00	.33
Social Skill							.30	1.19	.25
Supervisory Exp.							-.25	-1.08	.30
$\Delta R^2 =$	.12								
Model $R^2 =$	.08			.37			.49		
Adjusted $R^2 =$	-.10			.07			.09		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	5.93	.00	—	1.83	.11
Group Size	.16	.63	.55	.28	.57	.59
PSim	-.18	-.43	.67	-.92	-1.49	.18
IS	-.47	-1.12	.29	.50	.94	.38
IS x PSim	-.86	-2.74	.02	.18	.45	.67

Table 12: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting TMX.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.27	.00	—	5.38	.00	—	-.40	.70
Group Size	.09	.35	.73	.21	.77	.45	.37	1.35	.20
Culture	-.24	-.90	.38	-.25	-.94	.36	-.51	-1.75	.10
PSim	-.25	-1.07	.30	-.49	-1.81	.09	-.66	-2.47	.03
Culture x PSim	.17	.74	.46	-.01	-.04	.97	-.05	-.21	.83
$\Delta R^2 =$	.08								
Consid				-.12	-.41	.68	-.25	-.86	.40
Con x Cult.				-.02	-.08	.94	-.05	-.21	.83
Con x PSim				-.38	-1.25	.23	-.33	-1.14	.28
Con x Cult. x PSim				-.40	-1.33	.20	-.57	-1.91	.08
$\Delta R^2 =$	.19								
GPA							-.14	-.64	.53
Social Skill							.51	2.16	.05
Supervisory Exp.							-.19	-.83	.42
$\Delta R^2 =$	.19								
Model $R^2 =$	.08			.27			.46		
Adjusted $R^2 =$	-.10			-.07			.04		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 13: Hierarchical moderated regression analysis for Culture, Perceived similarity, Initiating structure, and Leader characteristics predicting Planning adaptability

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.37	.00	—	5.62	.00	—	1.80	.09
Group Size	-.12	-.51	.61	.12	.69	.50	.10	.48	.64
Culture	.03	.14	.89	.07	.39	.70	.18	.82	.42
PSim	.41	1.93	.07	.05	.28	.78	.10	.50	.63
Culture x PSim	.10	.50	.62	.10	.66	.52	.11	.64	.53
$\Delta R^2 =$	.21								
Consid				.55	2.93	.01	.58	2.76	.02
Con x Cult.				-.52	-3.00	.01	-.51	-2.76	.02
Con x PSim				-.35	-1.79	.09	-.39	-1.83	.09
Con x Cult. x PSim				-.23	-1.20	.25	-.18	-.84	.41
$\Delta R^2 =$	.48								
GPA							.15	.92	.37
Social Skill							-.12	-.71	.49
Supervisory Exp.							.05	.29	.78
$\Delta R^2 =$	.02								
Model $R^2 =$	.21			.69			.71		
Adjusted $R^2 =$	.06			.54			.49		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 14: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Cohesion: Individual Attraction to Task

	β	t	p	β	t	p	β	t	p
(Constant)	—	3.81	.00	—	3.85	.00	—	-.09	.93
Group Size	-.01	-.05	.96	.18	.97	.35	.24	1.18	.26
Culture	.14	.54	.59	.20	1.07	.30	.23	1.08	.30
PSim	.34	1.53	.14	.00	.00	1.00	-.02	-.12	.90
Culture x PSim	.15	.69	.50	.21	1.25	.23	.21	1.17	.26
$\Delta R^2 =$	.13								
Consid				.75	3.76	.00	.70	3.32	.01
Con x Cult.				-.33	-1.83	.09	-.35	-1.88	.08
Con x PSim				-.01	-.04	.97	-.08	-.35	.73
Con x Cult. x PSim				-.16	-.79	.44	-.17	-.77	.46
$\Delta R^2 =$	.53**								
GPA							.22	1.32	.21
Social Skill							.12	.71	.49
Supervisory Exp.							.00	-.03	.98
$\Delta R^2 =$	.06								
Model $R^2 =$	.13			.66			.71		
Adjusted $R^2 =$	-.04			.49			.48		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 15: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.37	.00	—	5.62	.00	—	1.80	.09
Group Size	-.12	-.51	.61	.12	.69	.50	.10	.48	.64
Culture	.03	.14	.89	.07	.39	.70	.18	.82	.42
PSim	.41	1.93	.07	.05	.28	.78	.10	.50	.63
Culture x PSim	.10	.50	.62	.10	.66	.52	.11	.64	.53
$\Delta R^2 =$	.21								
Consid				.55	2.93	.01	.58	2.76	.02
Con x Cult.				-.52	-3.00	.01	-.51	-2.76	.02
Con x PSim				-.35	-1.79	.09	-.39	-1.83	.09
Con x Cult. x PSim				-.23	-1.20	.25	-.18	-.84	.41
$\Delta R^2 =$	.48								
GPA							.15	.92	.37
Social Skill							-.12	-.71	.49
Supervisory Exp.							.05	.29	.78
$\Delta R^2 =$	.02								
Model $R^2 =$	.21			.69			.71		
Adjusted $R^2 =$	.06			.54			.49		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 16: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Cohesion: Group Task Integration

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.06	.00	—	9.41	.00	—	2.31	.04
Group Size	-.08	-.36	.72	.16	1.11	.28	.16	.97	.35
Culture	.00	.01	.99	.03	.23	.82	.00	.00	1.00
PSim	.46	2.18	.04	.09	.65	.52	.08	.52	.61
Culture x PSim	-.03	-.16	.88	.00	.01	.99	.01	.06	.96
$\Delta R^2 =$	.23								
Consid				.84	5.47	.00	.83	4.77	.00
Con x Cult.				-.31	-2.24	.04	-.32	-2.04	.06
Con x PSim				-.09	-.55	.59	-.07	-.41	.69
Con x Cult. x PSim				-.08	-.48	.64	-.08	-.46	.66
$\Delta R^2 =$	.56								
GPA							-.07	-.49	.63
Social Skill							.02	.12	.91
Supervisory Exp.							.01	.10	.92
$\Delta R^2 =$	.00								
Model $R^2 =$	.23			.79			.80		
Adjusted $R^2 =$	.08			.70			.64		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 17: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Cohesion: Group Social Integration

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.43	.00	—	9.41	.00	—	2.85	.01
Group Size	-.32	-1.46	.16	-.34	-1.99	.06	-.37	-1.94	.07
Culture	.04	.20	.85	.19	1.10	.29	.17	.80	.44
PSim	.46	2.30	.03	.32	1.91	.07	.33	1.77	.10
Culture x PSim	-.07	-.37	.72	.10	.66	.52	.12	.67	.51
$\Delta R^2 =$	.33								
Consid				.21	1.14	.27	.22	1.09	.29
Con x Cult.				-.49	-3.02	.01	-.49	-2.77	.02
Con x PSim				.17	.91	.37	.19	.92	.37
Con x Cult. x PSim				-.36	-1.92	.07	-.34	-1.64	.12
$\Delta R^2 =$	.39								
GPA							-.11	-.68	.51
Social Skill							-.06	-.33	.75
Supervisory Exp.							.05	.32	.75
$\Delta R^2 =$	.01								
Model $R^2 =$	.33			.72			.73		
Adjusted $R^2 =$	.20			.58			.52		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 18: Hierarchical moderated regression analysis for Culture, Perceived similarity, Consideration, and Leader characteristics predicting Total cohesion.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.24	.00	—	8.00	.00	—	1.71	.11
Group Size	-.13	-.55	.59	.06	.39	.70	.07	.38	.71
Culture	.07	.30	.77	.14	.94	.36	.17	.88	.39
PSim	.45	2.13	.05	.11	.73	.48	.11	.65	.53
Culture x PSim	.06	.27	.79	.13	.93	.37	.14	.85	.41
$\Delta R^2 =$	.22								
Consid				.68	4.16	.00	.67	3.59	.00
Con x Cult.				-.44	-2.96	.01	-.45	-2.71	.02
Con x PSim				-.06	-.38	.71	-.09	-.47	.64
Con x Cult. x PSim				-.22	-1.29	.21	-.21	-1.07	.30
$\Delta R^2 =$	.54								
GPA							.08	.51	.62
Social Skill							.01	.08	.94
Supervisory Exp.							.03	.17	.87
$\Delta R^2 =$	.01								
Model $R^2 =$	.22			.77			.77		
Adjusted $R^2 =$	.07			.66			.59		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 19: Hierarchical moderated regression analysis for Culture, Perceived similarity, Initiating structure, and Leader characteristics predicting Task conflict.

	β	t	p	β	t	p	β	t	p
(Constant)	—	2.44	.02	—	2.49	.02	—	2.34	.03
Group Size	-.01	-.04	.97	.00	-.01	.99	-.14	-.53	.61
Culture	.05	.20	.84	-.12	-.38	.71	-.05	-.16	.88
PSim	.20	.84	.41	.72	1.91	.07	.78	2.12	.05
Culture x PSim	.00	.01	.99	-.05	-.14	.89	.40	1.02	.32
$\Delta R^2 =$	.03								
IS				-.57	-1.49	.15	-.64	-1.76	.10
IS x Cult.				-.15	-.42	.68	-.62	-1.53	.15
IS x PSim				-.33	-1.21	.24	-.19	-.72	.49
IS x Cult. x PSim				.36	1.12	.28	.20	.61	.55
$\Delta R^2 =$	.20								
GPA							-.37	-1.52	.15
Social Skill							-.40	-1.49	.16
Supervisory Exp.							.28	1.15	.27
$\Delta R^2 =$	.20								
Model $R^2 =$	.03			.23			.43		
Adjusted $R^2 =$	-.15			-.13			-.01		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 20: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Initiating structure, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	3.62	.00	—	3.49	.00	—	1.70	.11
Group Size	-.06	-.29	.78	-.10	-.46	.65	-.16	-.63	.54
Culture	-.06	-.29	.78	.06	.25	.80	.11	.42	.68
r-LM	.65	3.71	.00	.68	3.30	.00	.79	3.26	.01
Culture x r-LM	-.06	-.36	.72	-.08	-.39	.70	-.16	-.63	.54
$\Delta R^2 =$	.41*								
IS				.06	.26	.80	.15	.55	.59
IS x Cult.				-.01	-.05	.96	-.05	-.19	.85
IS x r-LM				.19	.64	.53	.16	.49	.63
IS x Cult. x r-LM				-.13	-.43	.67	-.25	-.70	.50
$\Delta R^2 =$	.07								
GPA							-.05	-.19	.85
Social Skill							-.24	-1.01	.33
Supervisory Exp.							-.16	-.67	.51
$\Delta R^2 =$	.05								
Model $R^2 =$	.41			.48			.53		
Adjusted $R^2 =$	.30			.23			.17		

*$p \leq .05$. **$p \leq .01$.

Table 21: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	3.62	.00	—	3.40	.00	—	1.21	.24
Group Size	-.06	-.29	.78	-.04	-.19	.85	-.03	-.15	.88
Culture	-.06	-.29	.78	.29	1.33	.20	.25	1.04	.32
r-LM	.65	3.71	.00	.45	2.50	.02	.49	1.94	.07
Culture x r-LM	-.06	-.36	.72	.01	.07	.94	-.04	-.16	.88
$\Delta R^2 =$	.41**								
Consid				.54	2.68	.02	.59	2.67	.02
Con x Cult.				-.35	-1.73	.10	-.35	-1.43	.17
Con x r-LM				.14	.74	.47	.16	.78	.45
Con x Cult. x r-LM				-.44	-2.38	.03	-.46	-2.25	.04
$\Delta R^2 =$	.21								
GPA							-.14	-.69	.50
Social Skill							-.07	-.31	.76
Supervisory Exp.							-.09	-.44	.66
$\Delta R^2 =$	.03			.62			.65		
Model $R^2 =$	.41			.44			.38		
Adjusted $R^2 =$	.30			.62			.65		

*$p \leq .05$. **$p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	2.77	.02	—	1.42	.20
Group Size	-.10	-.36	.72	.10	.51	.63
r-LM	.48	1.68	.13	.41	1.99	.09
Consid	.20	.73	.49	.74	3.14	.02
Con x r-LM	-.29	-1.04	.32	.46	1.98	.09

Table 22: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, initiating structure, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.90	.07	—	1.57	.14	—	1.69	.11
Group Size	.14	.78	.45	.18	.86	.40	.06	.22	.83
Culture	-.19	-1.04	.31	-.18	-.76	.45	-.07	-.25	.81
r-LM	.66	3.98	.00	.68	3.35	.00	.83	3.49	.00
Culture x r-LM	-.04	-.24	.81	-.07	-.33	.75	-.10	-.39	.70
ΔR^2 =	.47**								
IS				.12	.50	.62	.22	.81	.43
IS x Cult.				.16	.69	.50	.11	.44	.67
IS x r-LM				-.09	-.30	.77	-.10	-.32	.75
IS x Cult. x r-LM				-.11	-.39	.70	-.22	-.62	.55
ΔR^2 =	.02								
GPA							-.01	-.05	.96
Social Skill							-.34	-1.43	.17
Supervisory Exp.							-.05	-.23	.82
ΔR^2 =	.07								
Model R^2 =	.47			.49			.56		
Adjusted R^2 =	.36			.25			.21		

*$p \leq .05$. **$p \leq .01$.

Table 23: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.90	.07	—	2.09	.05	—	1.28	.22
Group Size	.14	.78	.45	.09	.54	.60	.06	.33	.75
Culture	-.19	-1.04	.31	.22	1.18	.25	.18	.94	.36
r-LM	.66	3.98	.00	.46	2.95	.01	.48	2.30	.04
Culture x r-LM	-.04	-.24	.81	.11	.71	.49	.11	.57	.58
$\Delta R^2 =$	.47**								
Consid				.53	3.04	.01	.57	3.12	.01
Con x Cult.				-.56	-3.28	.00	-.58	-2.84	.01
Con x r-LM				.23	1.40	.18	.22	1.26	.23
Con x Cult. x r-LM				-.43	-2.77	.01	-.47	-2.73	.02
$\Delta R^2 =$	.26*								
GPA							-.18	-1.08	.30
Social Skill							-.10	-.51	.62
Supervisory Exp.							.00	.02	.98
$\Delta R^2 =$	.04								
Model $R^2 =$	.47			.72			.76		
Adjusted $R^2 =$	.36			.59			.57		

*p ≤ .05. **p ≤ .01.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	6.03	.00	—	4.03	.00
Group Size	.44	1.68	.13	.24	-.82	.44
r-LM	-1.42	2.44	.04	-.04	-.13	.90
Con	-1.19	4.13	.00	.19	-.50	.63
Con x r-LM	.87	1.80	.11	.97	-2.38	.05

Table 24: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, initiating structure, and Leader characteristics predicting Structural integrity.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.70	.10	—	1.74	.10	—	1.86	.08
Group Size	.21	1.02	.32	.15	.63	.54	-.06	-.23	.82
Culture	-.08	-.38	.71	.00	.00	1.00	.21	.73	.48
r-LM	.47	2.53	.02	.50	2.22	.04	.68	2.68	.02
Culture x r-LM	.21	1.15	.26	.19	.87	.40	.21	.78	.45
ΔR^2 =	.33								
Consid				-.05	-.18	.86	.01	.05	.96
Con x Cult.				-.09	-.34	.73	-.13	-.51	.62
Con x r-LM				.28	.84	.41	.32	.93	.37
Con x Cult. x r-LM				.03	.08	.94	.03	.09	.93
ΔR^2 =	.05								
GPA							.13	.49	.63
Social Skill							-.43	-1.70	.11
Supervisory Exp.							.11	.43	.67
ΔR^2 =	.12								
Model R^2 =	.33			.38			.50		
Adjusted R^2 =	.20			.09			.10		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 25: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Initiating structure, and Leader characteristics predicting Interactional justice.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.22	.00	—	7.00	.00	—	-.29	.78
Group Size	.15	.65	.52	.11	.44	.66	.36	1.54	.15
Culture	-.06	-.26	.80	-.04	-.15	.88	-.33	-1.32	.21
r-LM	-.45	-2.21	.04	-.47	-2.07	.05	-.77	-3.43	.00
Culture x r-LM	.11	.55	.59	.18	.80	.44	.27	1.14	.27
$\Delta R^2 =$	.22								
IS				-.10	-.35	.73	-.11	-.43	.67
IS x Cult.				-.26	-.98	.34	-.25	-1.07	.30
IS x r-LM				-.24	-.72	.48	-.40	-1.29	.22
IS x Cult. x r-LM				-.30	-.91	.38	-.43	-1.31	.21
$\Delta R^2 =$	.14								
GPA							-.38	-1.63	.12
Social Skill							.58	2.59	.02
Supervisory Exp.							-.02	-.08	.94
$\Delta R^2 =$	.25								
Model $R^2 =$	.22			.35			.61		
Adjusted $R^2 =$	.07			.05			.30		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 26: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Interactional justice.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.22	.00	—	6.04	.00	—	-1.21	.25
Group Size	.15	.65	.52	.20	.74	.47	.40	1.62	.13
Culture	-.06	-.26	.80	-.15	-.48	.64	-.26	-.95	.36
r-LM	-.45	-2.21	.04	-.51	-1.99	.06	-1.07	-3.71	.00
Culture x r-LM	.11	.55	.59	.07	.30	.77	.34	1.32	.21
□R2 =	.22								
Consid				-.04	-.14	.89	.03	.12	.91
Con x Cult.				.05	.19	.85	-.34	-1.24	.24
Con x r-LM				-.22	-.83	.42	-.24	-1.01	.33
Con x Cult. x r-LM				.04	.17	.87	-.14	-.62	.54
□R2 =	.03								
GPA							-.33	-1.42	.18
Social Skill							.80	3.05	.01
Supervisory Exp.							.14	.58	.57
□R2 =	.30								
Model R2 =	.22			.25			.55		
Adjusted R2 =	.07			-.11			.20		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 27: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting TMX.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.24	.00	—	5.33	.00	—	-.66	.52
Group Size	.06	.24	.81	.16	.57	.58	.37	1.26	.23
Culture	-.07	-.29	.78	-.16	-.48	.64	-.29	-.91	.38
r-LM	-.17	-.77	.45	-.26	-.97	.34	-.71	-2.13	.05
Culture x r-LM	-.02	-.11	.92	-.18	-.69	.50	-.02	-.05	.96
$\Delta R^2 =$	.03								
Consid				.00	.01	.99	.09	.32	.75
Con x Cult.				.22	.73	.48	-.12	-.39	.71
Con x r-LM				-.31	-1.09	.29	-.28	-1.03	.32
Con x Cult. x r-LM				-.17	-.62	.54	-.35	-1.28	.22
$\Delta R^2 =$	.12								
GPA							-.35	-1.31	.21
Social Skill							.67	2.18	.05
Supervisory Exp.							-.02	-.06	.95
$\Delta R^2 =$	.23								
Model $R^2 =$	.03			.16			.39		
Adjusted $R^2 =$	-.15			-.24			-.09		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 28: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Initiating structure, and Leader characteristics predicting planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	8.98	.00	—	8.31	.00	—	.32	.75
Group Size	-.02	-.06	.95	.10	.39	.70	.37	1.38	.19
Culture	.21	.89	.38	.07	.26	.80	-.22	-.75	.46
r-LM	-.30	-1.39	.18	-.32	-1.34	.20	-.56	-2.20	.04
Culture x r-LM	.00	-.01	.99	.02	.09	.93	.01	.03	.97
$\Delta R^2 =$	.11								
IS				.08	.28	.78	.07	.26	.80
IS x Cult.				.17	.60	.56	.19	.69	.50
IS x r-LM				-.59	-1.64	.12	-.72	-2.06	.06
IS x Cult. x r-LM				-.18	-.52	.61	-.33	-.88	.39
$\Delta R^2 =$	.16								
							-.33	-1.25	.23
GPA							.52	2.02	.06
Social Skill							-.18	-.74	.47
Supervisory Exp.									
$\Delta R^2 =$	.22								
Model $R^2 =$	.11			.27			.49		
Adjusted $R^2 =$	-.06			-.08			.08		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 29: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	8.98	.00	—	7.76	.00	—	.25	.81
Group Size	-.02	-.06	.95	.14	.50	.63	.32	1.11	.29
Culture	.21	.89	.38	.00	.00	1.00	-.12	-.40	.70
r-LM	-.30	-1.39	.18	-.39	-1.52	.15	-.74	-2.22	.04
Culture x r-LM	.00	-.01	.99	-.12	-.47	.64	-.03	-.09	.93
$\Delta R^2 =$	.11								
Consid				-.07	-.23	.82	.02	.08	.94
Con x Cult.				.28	1.00	.33	.01	.04	.97
Con x r-LM				-.44	-1.63	.12	-.40	-1.45	.17
Con x Cult. x r-LM				.09	.34	.74	-.06	-.23	.82
$\Delta R^2 =$	.13								
GPA							-.31	-1.18	.26
Social Skill							.53	1.74	.10
Supervisory Exp.							-.09	-.33	.74
$\Delta R^2 =$	.16								
Model $R^2 =$	.11			.24			.40		
Adjusted $R^2 =$	-.06			-.12			-.07		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 30: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Individual attraction to the task

	β	t	p	β	t	p	β	t	p
(Constant)	—	4.15	.00	—	4.52	.00	—	.15	.89
Group Size	-.09	-.38	.71	.05	.28	.79	.12	.64	.53
Culture	-.03	-.13	.90	.35	1.72	.10	.38	1.84	.09
r-LM	.28	1.32	.20	.07	.39	.70	.10	.47	.64
Culture x r-LM	-.19	-.92	.37	.13	.77	.45	.02	.09	.93
$\Delta R^2 =$	.12								
Consid				.93	4.86	.00	.89	4.65	.00
Con x Cult.				-.39	-2.07	.05	-.34	-1.59	.14
Con x r-LM				.31	1.73	.10	.37	2.03	.06
Con x Cult. x r-LM				-.04	-.24	.82	.01	.04	.97
$\Delta R^2 =$	.54**								
GPA							.26	1.48	.16
Social Skill							.09	.43	.68
Supervisory Exp.							-.20	-1.04	.32
$\Delta R^2 =$	.07								
Model $R^2 =$	.12			.66			.74		
Adjusted $R^2 =$	-.05			.50			.53		

*$p \leq .05$. **$p \leq .01$.

Table 31: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.66	.00	—	5.69	.00	—	2.15	.05
Group Size	-.20	-.86	.40	-.06	-.30	.77	-.12	-.52	.61
Culture	-.18	-.78	.45	.11	.47	.65	.15	.62	.55
r-LM	.34	1.62	.12	.12	.62	.55	.34	1.27	.23
Culture x r-LM	-.12	-.61	.55	.16	.88	.39	.04	.15	.88
$\Delta R^2 =$	.18								
Consid				.78	3.60	.00	.74	3.22	.01
Con x Cult.				-.35	-1.64	.12	-.19	-.74	.47
Con x r-LM				.16	.82	.42	.19	.85	.41
Con x Cult. x r-LM				.04	.18	.86	.12	.54	.60
$\Delta R^2 =$	.40**								
GPA							.18	.85	.41
Social Skill							-.28	-1.15	.27
Supervisory Exp.							-.10	-.45	.66
$\Delta R^2 =$	.04								
Model $R^2 =$	.18			.57			.62		
Adjusted $R^2 =$	.02			.37			.32		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 32: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Group Task Integration.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.26	.00	—	11.01	.00	—	2.19	.05
Group Size	-.11	-.50	.62	.08	.59	.56	.08	.53	.60
Culture	-.27	-1.22	.24	.07	.44	.67	.05	.28	.79
r-LM	.36	1.80	.09	.12	.98	.34	.08	.46	.65
Culture x r-LM	-.16	-.84	.41	.16	1.37	.19	.19	1.20	.25
$\Delta R^2 =$	.22								
Consid				.96	6.95	.00	.98	6.35	.00
Con x Cult.				-.34	-2.51	.02	-.38	-2.22	.04
Con x r-LM				.22	1.70	.11	.21	1.44	.17
Con x Cult. x r-LM				.04	.35	.73	.02	.13	.90
$\Delta R^2 =$	.61**								
GPA							-.09	-.61	.55
Social Skill							.03	.20	.84
Supervisory Exp.							.02	.16	.88
$\Delta R^2 =$	.00								
Model $R^2 =$	.22			.82			.83		
Adjusted $R^2 =$	.07			.74			.69		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 33: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Cohesion: Group Social Integration.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.18	.00	—	9.03	.00	—	1.84	.09
Group Size	-.31	-1.41	.17	-.37	-2.10	.05	-.37	-1.79	.10
Culture	-.22	-1.03	.32	.22	1.09	.29	.19	.86	.41
r-LM	.26	1.31	.20	.10	.62	.54	.05	.19	.85
Culture x r-LM	-.17	-.89	.39	.19	1.20	.25	.24	1.12	.28
ΔR^2 =	.25								
Consid				.66	3.51	.00	.68	3.29	.01
Con x Cult.				-.71	-3.85	.00	-.77	-3.32	.01
Con x r-LM				.45	2.58	.02	.44	2.21	.04
Con x Cult. x r-LM				-.07	-.44	.67	-.11	-.57	.58
ΔR^2 =	.43**								
GPA							-.13	-.69	.50
Social Skill							.04	.18	.86
Supervisory Exp.							.05	.24	.81
ΔR^2 =	.01								
Model R^2 =	.25			.68			.69		
Adjusted R^2 =	.11			.53			.45		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 34: Hierarchical moderated regression analysis for Culture, Correlation between leaders' and members' values, Consideration, and Leader characteristics predicting Total Cohesion.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.47	.00	—	8.90	.00	—	1.71	.11
Group Size	-.18	-.80	.44	-.06	-.41	.69	-.04	-.25	.80
Culture	-.18	-.78	.44	.23	1.35	.19	.24	1.26	.23
r-LM	.34	1.67	.11	.11	.77	.45	.15	.73	.48
Culture x r-LM	-.18	-.93	.36	.17	1.28	.22	.12	.67	.51
$\Delta R^2 =$	.20								
Consid				.94	5.95	.00	.93	5.29	.00
Con x Cult.				-.49	-3.12	.01	-.45	-2.32	.04
Con x r-LM				.32	2.17	.04	.34	2.05	.06
Con x Cult. x r-LM				-.01	-.10	.92	.01	.05	.96
$\Delta R^2 =$	.57**								
GPA							.09	.54	.60
Social Skill							-.01	-.06	.95
Supervisory Exp.							-.08	-.47	.65
$\Delta R^2 =$	.01								
Model $R^2 =$	.20			.77			.78		
Adjusted $R^2 =$	.04			.66			.60		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 35: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.94	.07	—	1.53	.14	—	.43	.67
Group Size	.13	.49	.63	.25	.94	.36	.30	1.06	.31
Culture	.00	.02	.99	.05	.25	.80	-.01	-.05	.96
All-D^2	-.04	-.20	.85	-.17	-.74	.47	-.29	-1.11	.29
Culture x All-D^2	.34	1.58	.13	.47	1.99	.06	.57	2.18	.05
ΔR^2 =	.12								
Consid				.42	1.94	.07	.45	2.01	.06
Con x Cult.				-.31	-1.55	.14	-.35	-1.68	.11
Con x All-D^2				-.01	-.05	.96	-.08	-.30	.77
Con x Cult. x All-D^2				-.46	-1.91	.07	-.56	-2.20	.04
ΔR^2 =	.37**								
GPA							-.08	-.37	.71
Social Skill							.02	.08	.94
Supervisory Exp.							-.33	-1.52	.15
ΔR^2 =	.08								
Model R^2 =	.12			.49			.56		
Adjusted R^2 =	-.05			.24			.22		

*$p \leq .05$. **$p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	3.44	.01	—	3.49	.01
Group Size	.11	.48	.65	-.35	-1.13	.30
L-Unimp-D^2	-.71	-3.02	.01	-.41	-1.06	.32
Consid	-.33	-1.35	.21	-.64	-1.57	.16
Con x L-Unimp-D^2	-.86	-3.23	.01	.44	.87	.42

Table 36: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.84	.41	—	1.43	.17	—	.95	.36
Group Size	.27	.97	.34	.12	.52	.61	.09	.37	.72
Culture	-.10	-.40	.69	.10	.49	.63	.02	.08	.94
All-D^2	-.07	-.30	.77	-.14	-.67	.51	-.25	-1.07	.30
Culture x All-D^2	.13	.60	.55	-.03	-.14	.89	-.01	-.05	.96
ΔR^2 =	.08								
Consid				.25	1.27	.22	.26	1.30	.21
Con x Cult.				-.63	-3.50	.00	-.70	-3.77	.00
Con x All-D^2				-.51	-2.20	.04	-.64	-2.59	.02
Con x Cult. x All-D^2				-.50	-2.29	.04	-.58	-2.53	.02
ΔR^2 =	.50**								
GPA							-.25	-1.34	.20
Social Skill							-.03	-.16	.88
Supervisory Exp.							-.20	-1.03	.32
ΔR^2 =	.07								
Model R^2 =	.08			.58			.65		
Adjusted R^2 =	-.10			.38			.38		

*$p \leq .05$. **$p \leq .01$.

Table 37: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Structural integrity.

		β	t	p	β	t	p	β	t	p
(Constant)		—	.70	.49	—	.70	.50	—	1.07	.30
Group Size		.39	1.45	.16	.38	1.34	.20	.34	1.07	.30
Culture		-.07	-.28	.78	-.04	-.16	.88	.05	.1'	.87
All-D^2		.04	.18	.86	-.17	-.67	.51	-.33	-1.17	.26
Culture x All-D^2		.14	.66	.52	.24	.93	.37	.39	1.33	.21
	ΔR^2 =	.12								
Consid					.13	.55	.59	.20	.8:	.43
Con x Cult.					-.23	-1.09	.29	-.22	-.9'	.34
Con x All-D^2					-.21	-.78	.45	-.28	-.9:	.37
Con x Cult. x All-D^2					-.61	-2.34	.03	-.72	-2.55	.02
	$1\Delta R^2$ =	.28								
GPA								.06	.2:	.78
Social Skill								-.26	-1.05	.31
Supervisory Exp.								-.23	-1.00	.34
	ΔR^2 =	.07								
Model R^2 =		.12			.40			.47		
Adjusted R^2 =		-.05			.11			.06		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	1.09	.30	—	-1.56	.16
Group Size	.09	.23	.83	.74	4.13	.00
All-D^2	-.11	-.31	.76	-.54	-2.33	.05
Consid	-.23	-.61	.55	.46	2.73	.03
Con x All-D^2	-.61	-1.75	.11	.85	3.55	.01

Table 38: Hierarchical moderated regression analysis for Culture, Squared differences, Initiating structure, and Leader characteristics predicting Planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.86	.00	—	7.05	.00	—	1.35	.20
Group Size	-.05	-.19	.85	.08	.25	.80	.20	.57	.58
Culture	.17	.65	.52	.24	.90	.38	.10	.32	.76
All-D^2	.08	.33	.74	.54	1.11	.28	.61	1.15	.27
Culture x All-D^2	-.07	-.33	.75	.48	1.19	.25	.53	1.14	.27
$\Delta R^2 =$	.03								
IS				.68	1.78	.09	.63	1.54	.15
IS x Cult.				-.11	-.28	.78	-.04	-.10	.92
IS x All-D^2				1.11	2.70	.02	1.11	2.49	.03
IS x Cult. x All-D^2				-.23	-.50	.63	-.10	-.18	.86
$\Delta R^2 =$	.33								
GPA							-.19	-.70	.49
Social Skill							.20	.79	.44
Supervisory Exp.							-.14	-.60	.56
$\Delta R^2 =$	.06								
Model $R^2 =$	.03			.36			.42		
Adjusted $R^2 =$	-.15			.06			-.03		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 39: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Individual Attraction to Task

	β	t	p	β	t	p	β	t	p
(Constant)	—	3.82	.00	—	3.63	.00	—	-.14	.89
Group Size	-.18	-.64	.53	.07	.33	.75	.19	.77	.45
Culture	.08	.33	.74	.22	1.19	.25	.23	1.07	.30
All-D^2	-.19	-.79	.44	-.07	-.33	.75	.00	-.01	.99
Culture x All-D^2	-.08	-.37	.72	-.10	-.51	.62	-.06	-.24	.81
ΔR^2 =	.04								
Consid				.82	4.41	.00	.82	4.20	.00
Con x Cult.				-.27	-1.62	.12	-.23	-1.30	.21
Con x All-D^2				-.02	-.11	.92	.09	.38	.71
Con x Cult. x All-D^2				-.10	-.47	.64	-.08	-.34	.74
ΔR^2 =	.58**								
GPA							.22	1.25	.23
Social Skill							.14	.75	.47
Supervisory Exp.							-.03	-.17	.87
ΔR^2 =	.05								
Model R^2 =	.04			.62			.67		
Adjusted R^2 =	-.15			.44			.42		

*p ≤ .05. **p ≤ .01.

Table 40: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction

	β	t	p	β	t	p	β	t	p
(Constant)	—	4.77	.00	—	4.52	.00	—	1.22	.24
Group Size	-.21	-.78	.45	.03	.13	.90	.03	.10	.92
Culture	-.09	-.36	.73	.03	.16	.87	.08	.34	.74
All-D^2	-.06	-.26	.80	.04	.20	.84	.04	.15	.89
Culture x All-D^2	-.11	-.51	.62	-.09	-.44	.66	-.07	-.26	.80
ΔR^2 =	.07								
Consid				.77	3.93	.00	.79	3.58	.00
Con x Cult.				-.29	-1.63	.12	-.27	-1.32	.21
Con x All-D^2				.06	.26	.80	.08	.31	.76
Con x Cult. x All-D^2				-.08	-.39	.70	-.08	-.34	.74
ΔR^2 =	.51**								
GPA							.10	.47	.65
Social Skill							-.06	-.26	.80
Supervisory Exp.							.01	.06	.95
ΔR^2 =	.01								
Model R^2 =	.07			.58			.59		
Adjusted R^2 =	-.11			.38			.26		

*$p \leq .05$. **$p \leq .01$.

Table 41: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Group Task Integration

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.87	.00	—	8.33	.00	—	2.10	.05
Group Size	-.10	-.36	.73	.16	.98	.34	.15	.80	.44
Culture	-.19	-.76	.46	-.03	-.19	.85	-.07	-.41	.69
All-D^2	-.10	-.41	.69	.03	.18	.86	.02	.13	.89
Culture x All-D^2	.05	.24	.81	.01	.07	.95	-.02	-.10	.92
ΔR^2 =	.07								
Consid				.89	6.53	.00	.87	5.83	.00
Con x Cult.				-.30	-2.41	.03	-.32	-2.34	.03
Con x All-D^2				-.11	-.67	.51	-.14	-.76	.46
Con x Cult. x All-D^2				-.17	-1.14	.27	-.17	-1.02	.33
ΔR^2 =	.73**								
GPA							-.10	-.72	.48
Social Skill							.03	.23	.82
Supervisory Exp.							-.01	-.07	.95
ΔR^2 =	.01								
Model R^2 =	.07			.80			.81		
Adjusted R^2 =	-.11			.70			.65		

*$p \leq .05$. **$p \leq .01$.

Table 42: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Cohesion: Group Social Integration

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.14	.00	—	6.34	.00	—	1.78	.10
Group Size	-.34	-1.30	.21	-.29	-1.19	.25	-.35	-1.23	.24
Culture	-.14	-.61	.55	.03	.14	.89	.00	.01	1.00
All-D^2	-.09	-.41	.69	.02	.11	.91	.06	.24	.82
Culture x All-D^2	-.03	-.15	.88	-.14	-.65	.52	-.23	-.90	.38
ΔR^2 =	.16								
Consid				.52	2.59	.02	.49	2.23	.04
Con x Cult.				-.52	-2.85	.01	-.55	-2.70	.02
Con x All-D^2				-.07	-.29	.78	-.10	-.37	.72
Con x Cult. x All-D^2				-.01	-.02	.98	.03	.12	.90
ΔR^2 =	.39*								
GPA							-.14	-.70	.49
Social Skill							.01	.06	.95
Supervisory Exp.							.13	.62	.54
ΔR^2 =	.03								
Model R^2 =	.16			.56			.58		
Adjusted R^2 =	.00			.35			.25		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 43: Hierarchical moderated regression analysis for Culture, Squared differences, Consideration, and Leader characteristics predicting Total cohesion.

		β	t	p	β	t	p	β	t	p
(Constant)		—	5.46	.00	—	6.52	.00	—	1.23	.24
Group Size		-.22	-.80	.43	.01	.05	.96	.04	.17	.87
Culture		-.07	-.28	.78	.09	.58	.57	.09	.45	.66
All-D^2		-.13	-.57	.58	.00	-.02	.98	.03	.13	.90
Culture x All-D^2		-.05	-.23	.82	-.09	-.52	.61	-.10	-.45	.66
	$\Delta R^2 =$	.0(								
Consid					.85	5.22	.00	.84	4.61	.00
Con x Cult.					-.37	-2.52	.02	-.36	-2.18	.05
Con x All-D^2					-.04	-.21	.84	-.01	-.03	.98
Con x Cult. x All-D^2					-.10	-.57	.57	-.09	-.42	.68
	$\Delta R^2 =$	.65**								
GPA								.05	.28	.78
Social Skill								.05	.31	.76
Supervisory Exp.								.02	.11	.91
	$\Delta R^2 =$	.0(								
Model $R^2 =$		.0(			.71			.72		
Adjusted $R^2 =$		-.12			.58			.49		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 44: Hierarchical moderated regression analysis for Culture, Squared differences based on Prosocial Values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.81	.43	—	.78	.45	—	.15	.88
Group Size	.28	1.03	.32	.26	.98	.34	.31	1.03	.32
Culture	-.11	-.47	.64	.02	.11	.92	-.10	-.39	.70
PS-D^2	-.07	-.29	.77	-.05	-.26	.80	-.13	-.53	.60
Culture x PS-D^2	.11	.49	.63	.03	.12	.91	.07	.26	.80
ΔR^2 =	.07								
Consid				.29	1.15	.27	.26	.95	.36
Con x Cult.				-.59	-2.54	.02	-.70	-2.71	.02
Con x PS-D^2				-.23	-.92	.37	-.36	-1.24	.23
Con x Cult. x PS-D^2				-.25	-1.09	.29	-.35	-1.34	.20
ΔR^2 =	.37								
GPA							-.18	-.78	.45
Social Skill							.07	.29	.78
Supervisory Exp.							-.24	-.91	.38
ΔR^2 =	.06								
Model R^2 =	.07			.44			.50		
Adjusted R^2 =	-.11			.17			.10		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 45: Hierarchical moderated regression analysis for Culture, Squared differences based on Prosocial Values, Initiating structure, and Leader characteristics predicting Structural integrity.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.66	.51	—	1.14	.27	—	.51	.62
Group Size	.41	1.53	.14	.09	.29	.78	.02	.07	.95
Culture	-.07	-.30	.76	-.70	-2.00	.06	-.61	-1.57	.14
PS-D^2	.05	.24	.81	-1.47	-2.13	.05	-1.59	-2.11	.05
Culture x PS-D^2	.14	.64	.53	-1.24	-2.04	.06	-1.29	-1.88	.08
ΔR^2 =	.12								
IS				-1.17	-2.07	.05	-1.19	-1.92	.08
IS x Cult.				-1.03	-1.96	.07	-1.12	-1.92	.08
IS x PS-D^2				-1.47	-2.39	.03	-1.51	-2.28	.04
IS x Cult. x PS-D^2				-1.06	-1.86	.08	-1.22	-1.92	.08
ΔR^2 =	.24								
GPA							.20	.75	.46
Social Skill							-.13	-.51	.62
Supervisory Exp.							.06	.22	.83
ΔR^2 =	.04								
Model R^2 =	.12			.36			.40		
Adjusted R^2 =	-.05			.06			-.08		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 46: Hierarchical moderated regression analysis for Culture, Squared differences based on Individualistic Values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)		.80	.43		.87	.40		.51	.62
Group Size	.27	1.00	.33	.25	1.01	.33	.20	.76	.46
Culture	-.10	-.40	.69	.06	.28	.78	-.08	-.33	.75
Ind-D^2	.02	.10	.92	-.01	-.04	.97	-.11	-.39	.70
Culture x Ind-D^2	-.01	-.04	.97	.02	.06	.95	-.02	-.09	.93
ΔR^2 =	.06								
Consid				.24	1.04	.31	.16	.65	.52
Con x Cult.				-.66	-3.12	.01	-.83	-3.62	.00
Con x Ind-D^2				-.43	-1.47	.16	-.71	-2.13	.05
Con x Cult. x Ind-D^2				-.46	-1.59	.13	-.64	-2.09	.06
ΔR^2 =	.43*								
GPA							-.35	-1.59	.13
Social Skill							.06	.30	.77
Supervisory Exp.							-.21	-1.03	.32
ΔR^2 =	.10								
Model R^2 =	.06			.49			.59		
Adjusted R^2 =	-.12			.24			.26		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 47: Hierarchical moderated regression analysis for Culture, Squared differences based on Individualistic Values, Initiating structure, and Leader characteristics predicting Structural integrity

	β	t	p	β	t	p	β	t	p
(Constant)	—	.72	.48	—	.47	.65	—	.74	.47
Group Size	.38	1.44	.17	.44	1.65	.12	.41	1.32	.21
Culture	-.07	-.27	.79	.00	-.02	.99	.05	.17	.87
Ind-D^2	.06	.23	.82	-.22	-.78	.44	-.37	-1.13	.28
Culture x Ind-D^2	.09	.40	.69	.41	1.40	.18	.52	1.58	.14
ΔR^2 =	.11								
Consid				.10	.37	.71	.14	.50	.63
Con x Cult.				-.35	-1.54	.14	-.42	-1.60	.13
Con x Ind-D^2				-.22	-.70	.49	-.35	-.92	.37
Con x Cult. x Ind-D^2				-.74	-2.37	.03	-.88	-2.47	.03
ΔR^2 =	.29								
GPA							-.01	-.03	.97
Social Skill							-.17	-.69	.50
Supervisory Exp.							-.24	-1.02	.33
ΔR^2 =	.06								
Model R^2 =	.11			.40			.46		
Adjusted R^2 =	-.06			.11			.03		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	.80	.44	—	-1.92	.10
Group Size	.22	.59	.57	.74	4.71	.00
Ind-D^2	.07	.19	.85	-.68	-3.03	.02
Consid	-.33	-.75	.47	.57	3.99	.01
Con x Ind-D^2	-.62	-1.51	.17	1.02	4.39	.00

Table 48: Hierarchical moderated regression analysis for Culture, Squared differences based on Individualistic Values, Initiating structure, and Leader characteristics predicting Planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	8.16	.00	—	8.64	.00	—	1.56	.14
Group Size	-.13	-.46	.65	-.02	-.06	.95	.03	.09	.93
Culture	.20	.79	.44	.63	1.51	.15	.47	1.00	.34
Ind-D^2	-.10	-.41	.69	1.62	1.37	.19	1.61	1.26	.23
Culture x Ind-D^2	.00	-.01	.99	1.14	1.15	.27	1.10	1.02	.32
$\Delta R^2 =$	.03								
IS				1.46	2.21	.04	1.38	1.92	.08
IS x Cult.				-.17	-.26	.80	-.17	-.25	.80
IS x Ind-D^2				2.78	2.55	.02	2.75	2.30	.04
IS x Cult. x Ind-D^2				-.25	-.23	.82	-.21	-.18	.86
$\Delta R^2 =$	.37								
GPA							-.21	-.85	.41
Social Skill							.20	.77	.45
Supervisory Exp.							-.04	-.18	.86
$\Delta R^2 =$	.05								
Model $R^2 =$	.03			.41			.46		
Adjusted $R^2 =$	-.15			.13			.04		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 49: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important and unimportant values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.12	.27	—	.75	.47	—	.23	.82
Group Size	.27	1.23	.23	.31	1.54	.14	.39	1.75	.10
Culture	-.11	-.50	.62	-.04	-.16	.87	-.16	-.63	.54
L-All-D^2	.01	.03	.98	-.04	-.14	.89	-.04	-.14	.89
Culture x L-All-D^2	.41	2.15	.04	.08	.31	.76	.20	.74	.47
ΔR^2 =	.23								
Consid				.37	1.67	.11	.41	1.74	.10
Con x Cult.				-.49	-2.32	.03	-.48	-2.22	.04
Con x L-All-D^2				-.18	-.74	.47	-.19	-.71	.49
Con x Cult. x L-All-D^2				-.28	-1.17	.26	-.27	-1.02	.32
ΔR^2 =	.30								
GPA							-.20	-.94	.36
Social Skill							.04	.21	.84
Supervisory Exp.							-.21	-.99	.34
ΔR^2 =	.06								
Model R^2 =	.23			.52			.58		
Adjusted R^2 =	.08			.30			.25		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 50: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important and unimportant values, Consideration, and Leader characteristics predicting Structural integrity.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.13	.27	—	.80	.44	—	1.17	.26
Group Size	.33	1.47	.16	.39	2.00	.06	.42	2.21	.04
Culture	-.05	-.21	.83	-.31	-1.40	.18	-.32	-1.42	.18
L-All-D^2	.00	.02	.99	-.50	-2.00	.06	-.77	-3.00	.01
Culture x L-All-D^2	.27	1.36	.19	-.16	-.70	.49	-.11	-.46	.66
ΔR^2 =	.17								
Consid				-.04	-.19	.85	-.02	-.11	.91
Con x Cult.				-.26	-1.31	.21	-.23	-1.22	.24
Con x L-All-D^2				-.38	-1.58	.13	-.52	-2.29	.04
Con x Cult. x L-All-D^2				-.79	-3.41	.00	-.95	-4.14	.00
ΔR^2 =	.38*								
GPA							.20	1.11	.29
Social Skill							-.26	-1.42	.18
Supervisory Exp.							-.33	-1.81	.09
ΔR^2 =	.13								
Model R^2 =	.17			.56			.69		
Adjusted R^2 =	.01			.35			.44		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 51: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Consideration, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	2.57	.02	—	2.18	.04	—	.23	.82
Group Size	.09	.39	.70	.18	.78	.44	.30	1.23	.24
Culture	-.01	-.03	.97	.04	.18	.86	-.14	-.54	.60
L-Imp-D^2	-.16	-.83	.42	-.11	-.45	.66	-.12	-.44	.66
Culture x L-Imp-D^2	.42	2.15	.04	.31	1.30	.21	.43	1.68	.11
ΔR^2 =	.20								
Consid				.48	2.12	.05	.50	2.14	.05
Con x Cult.				-.24	-1.14	.27	-.25	-1.19	.25
Con x L-Imp-D^2				.13	.55	.59	.10	.40	.70
Con x Cult. x L-Imp-D^2				-.30	-1.27	.22	-.31	-1.25	.23
ΔR^2 =	.25								
GPA							-.22	-1.01	.33
Social Skill							.13	.61	.55
Supervisory Exp.							-.27	-1.23	.24
ΔR^2 =	.09								
Model R^2 =	.20			.45			.54		
Adjusted R^2 =	.05			.20			.18		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 52: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.95	.35	—	.84	.41	—	.34	.74
Group Size	.30	1.36	.19	.29	1.35	.19	.38	1.65	.12
Culture	-.13	-.58	.57	-.01	-.06	.95	-.16	-.65	.53
L-Imp-D^2	-.04	-.19	.85	-.05	-.22	.83	-.06	-.24	.81
Culture x L-Imp-D^2	.41	2.12	.05	.09	.41	.69	.22	.90	.38
ΔR^2 =	.22								
Consid				.40	1.86	.08	.44	1.97	.07
Con x Cult.				-.47	-2.38	.03	-.48	-2.34	.03
Con x L-Imp-D^2				-.19	-.86	.40	-.23	-.95	.36
Con x Cult. x L-Imp-D^2				-.26	-1.18	.25	-.27	-1.12	.28
ΔR^2 =	.29								
GPA							-.23	-1.09	.30
Social Skill							.04	.17	.86
Supervisory Exp.							-.24	-1.13	.28
ΔR^2 =	.07								
Model R^2 =	.22			.51			.58		
Adjusted R^2 =	.07			.28			.26		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 53: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Initiating structure, and Leader characteristics predicting Structural integrity.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.04	.31	—	1.94	.07	—	.5	.59
Group Size	.35	1.56	.13	.09	.37	.72	.09	.3	.75
Culture	-.07	-.32	.76	-.13	-.57	.58	-.11	-.39	.70
L-Imp-D^2	-.10	-.51	.61	-.68	-2.18	.04	-.79	-2.21	.04
Culture x L-Imp-D^2	.29	1.49	.15	.14	.49	.63	.17	.5	.62
ΔR^2 =	.19								
IS				.11	.37	.72	.15	.4	.65
IS x Cult.				-.43	-1.36	.19	-.48	-1.41	.18
IS x L-Imp-D^2				-.11	-.30	.77	-.14	-.35	.73
IS x Cult. x L-Imp-D^2				-.95	-2.26	.04	-1.05	-2.23	.04
ΔR^2 =	.21								
GPA							.09	.3	.71
Social Skill							-.05	-.21	.83
Supervisory Exp.							-.20	-.85	.41
ΔR^2 =	.04								
Model R^2 =	.19			.40			.44		
Adjusted R^2 =	.04			.12			.00		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	1.62	.14	—	.49	.64
Group Size	-.04	-.12	.90	.36	1.45	.19
L-Imp-D^2	-.58	-1.20	.26	-.91	-2.60	.04
IS	-.27	-.82	.43	.58	1.19	.27
IS x L-Imp-D^2	-.91	-1.86	.10	.90	1.50	.18

Table 54: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' important values, Consideration, and Leader characteristics predicting Structural integrity.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.04	.31	—	1.13	.28	—	1.14	.27
Group Size	.35	1.56	.13	.32	1.40	.18	.32	1.39	.19
Culture	-.07	-.32	.76	-.16	-.69	.50	-.12	-.48	.64
L-Imp-D^2	-.10	-.51	.61	-.38	-1.56	.14	-.57	-2.16	.05
Culture x L-Imp-D^2	.29	1.49	.15	.00	.01	.99	.02	.07	.95
ΔR^2 =	.19								
Consid				.12	.51	.62	.17	.75	.47
Con x Cult.				-.20	-.96	.35	-.19	-.90	.38
Con x L-Imp-D^2				-.23	-.96	.35	-.40	-1.61	.13
Con x Cult. x L-Imp-D^2				-.59	-2.54	.02	-.71	-2.95	.01
ΔR^2 =	.26								
GPA							.12	.57	.58
Social Skill							-.23	-1.10	.29
Supervisory Exp.							-.32	-1.49	.16
ΔR^2 =	.11								
Model R^2 =	.19			.45			.57		
Adjusted R^2 =	.04			.19			.22		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	1.10	.30	—	-.46	.66
Group Size	.15	.50	.63	.56	3.28	.01
L-Imp-D^2	-.40	-.96	.36	-.47	-2.46	.04
Consid	-.15	-.44	.67	.39	2.08	.08
Con x L-Imp-D^2	-.77	-1.87	.09	.47	2.71	.03

Table 55: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' unimportant values, Consideration, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	2.45	.02	—	1.98	.07	—	.05	.96
Group Size	.02	.09	.93	.16	.68	.51	.19	.72	.49
Culture	.01	.05	.96	.16	.68	.51	.03	.10	.92
L-Unimp-D^2	.18	.80	.43	.19	.93	.37	.19	.82	.43
Culture x L-Unimp-D^2	.07	.32	.75	-.02	-.08	.94	-.12	-.47	.65
ΔR^2 =	.04								
Consid				.70	2.65	.02	.65	2.19	.05
Con x Cult.				-.49	-1.89	.08	-.56	-1.95	.08
Con x L-Unimp-D^2				-.34	-1.28	.22	-.40	-1.36	.20
Con x Cult. x L-Unimp-D^2				.08	.29	.78	.08	.28	.79
ΔR^2 =	.42								
GPA							-.20	-.73	.48
Social Skill							.17	.68	.51
Supervisory Exp.							.05	.21	.83
ΔR^2 =	.04								
Model R^2 =	.04			.46			.50		
Adjusted R^2 =	-.16			.17			.04		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 56: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' prosocial values, Consideration, and Leader characteristics predicting Originality of design.

		β	t	p	β	t	p	β	t	p
(Constant)		—	1.26	.22	—	1.24	.23	—	.72	.48
Group Size		.23	1.09	.29	.22	1.14	.27	.27	1.36	.20
Culture		-.10	-.47	.64	.07	.37	.72	-.04	-.18	.86
L-PS-D^2		-.09	-.44	.66	-.07	-.35	.73	.02	.11	.92
Culture x L-PS-D^2		.48	2.52	.02	.14	.79	.44	.27	1.34	.20
	ΔR^2 =	.27								
Consid					.35	1.89	.08	.41	2.13	.05
Con x Cult.					-.45	-2.67	.02	-.46	-2.70	.02
Con x L-PS-D^2					-.38	-2.02	.06	-.40	-2.08	.06
Con x Cult. x L-PS-D^2					-.12	-.63	.54	.00	-.01	.99
	ΔR^2 =	.33*								
GPA								-.29	-1.46	.17
Social Skill								.01	.04	.97
Supervisory Exp.								-.16	-.95	.36
	ΔR^2 =	.07								
Model R^2 =		.27			.61			.68		
Adjusted R^2 =		.14			.42			.42		

*$p \leq .05$. **$p \leq .01$.

Table 57: Hierarchical moderated regression analysis for Culture, Squared differences referenced to leaders' prosocial values, Consideration, and Leader characteristics predicting Structural integrity.

		β	t	p	β	t	p	β	t	p
(Constant)		—	1.23	.23	—	1.40	.18	—	.91	.38
Group Size		.30	1.34	.19	.31	1.63	.12	.27	1.40	.18
Culture		-.04	-.19	.85	-.09	-.50	.62	.03	.15	.89
L-PS-D^2		-.09	-.43	.67	-.35	-1.87	.08	-.47	-2.34	.03
Culture x L-PS-D^2		.33	1.64	.12	.03	.19	.85	.04	.18	.86
	ΔR^2 =	.20								
Consid					.12	.69	.50	.16	.86	.41
Con x Cult.					-.18	-1.12	.28	-.14	-.85	.41
Con x L-PS-D^2					-.32	-1.76	.10	-.35	-1.91	.08
Con x Cult. x L-PS-D^2					-.60	-3.40	.00	-.67	-3.53	.00
	ΔR^2 =	.43**								
GPA								.25	1.28	.22
Social Skill								-.18	-1.04	.31
Supervisory Exp.								-.12	-.73	.48
	ΔR^2 =	.07								
Model R^2 =		.20			.63			.70		
Adjusted R^2 =		.05			.45			.46		

*$p \leq .05$. **$p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	1.52	0.16	—	-0.69	0.51
Group Size	0.16	0.75	0.47	0.64	2.67	0.03
L-PS-D^2	-0.33	-1.32	0.22	-0.27	-1.14	0.29
Consid	-0.10	-0.46	0.66	0.46	2.00	0.09
Consid x L-PS-D^2	-0.93	-3.65	0.01	0.48	2.14	0.07

Table 58: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting TMX.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.01	.00	—	5.22	.00	—	.80	.44
Group Size	-.03	-.12	.91	.24	.80	.43	.28	.88	.39
Culture	-.06	-.23	.82	-.02	-.07	.94	-.23	-.64	.53
G-All-D^2	-.13	-.52	.61	.71	1.61	.13	.60	1.21	.25
Culture x G-All-D^2	.02	.08	.94	.52	1.41	.18	.46	1.03	.32
ΔR^2 =	.02								
IS				.44	1.31	.21	.34	.90	.38
IS x Cult.				-.05	-.17	.87	-.11	-.36	.72
IS x G-All-D^2				1.34	2.66	.02	1.30	2.40	.03
IS x Cult. x G-All-D^2				-.24	-.49	.63	-.28	-.47	.64
ΔR^2 =	.32								
GPA							-.27	-1.09	.30
Social Skill							.22	.75	.47
Supervisory Exp.							-.10	-.42	.68
ΔR^2 =	.09								
Model R^2 =	.02			.34			.42		
Adjusted R^2 =	-.17			.02			-.03		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 59: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	8.25	.00	—	7.68	.00	—	1.92	.08
Group Size	-.11	-.40	.70	.24	.86	.40	.24	.83	.42
Culture	.19	.75	.46	.16	.61	.55	.05	.16	.88
G-All-D^2	-.02	-.10	.92	.87	2.13	.05	.88	1.90	.08
Culture x G-All-D^2	-.09	-.39	.70	.36	1.07	.30	.41	1.00	.33
ΔR^2 =	.03								
IS				.61	1.93	.07	.58	1.67	.12
IS x Cult.				-.11	-.42	.68	-.16	-.57	.58
IS x G-All-D^2				1.58	3.38	.00	1.61	3.21	.01
IS x Cult. x G-All-D^2				-.55	-1.24	.23	-.44	-.82	.43
ΔR^2 =	.40*								
GPA							-.31	-1.36	.20
Social Skill							.06	.23	.82
Supervisory Exp.							-.10	-.44	.67
ΔR^2 =	.08								
Model R^2 =	.03			.43			.51		
Adjusted R^2 =	-.15			.16			.12		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 60: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Depth of planning.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.04	.00	—	5.68	.00	—	1.21	.25
Group Size	-.43	-1.84	.08	-.28	-1.12	.28	-.27	-.98	.34
Culture	.31	1.41	.17	.26	1.13	.27	.17	.56	.58
G-All-D^2	-.30	-1.43	.17	.23	.64	.53	.21	.50	.63
Culture x G-All-D^2	-.38	-1.94	.07	-.17	-.56	.58	-.16	-.43	.67
ΔR^2 =	.29								
IS				.28	1.01	.32	.25	.78	.45
IS x Cult.				-.32	-1.34	.20	-.35	-1.34	.20
IS x G-All-D^2				1.14	2.76	.01	1.15	2.47	.03
IS x Cult. x G-All-D^2				-.50	-1.27	.22	-.47	-.94	.36
ΔR^2 =	.26								
GPA							-.18	-.85	.41
Social Skill							.07	.29	.77
Supervisory Exp.							-.06	-.29	.78
ΔR^2 =	.03								
Model R^2 =	.29			.55			.58		
Adjusted R^2 =	.15			.34			.25		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 61: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Total planning performance.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.57	.00	—	6.76	.00	—	1.77	.10
Group Size	-.37	-1.47	.16	-.18	-.63	.53	-.18	-.58	.57
Culture	.26	1.12	.27	.14	.52	.61	.12	.34	.74
G-All-D^2	-.29	-1.30	.21	.18	.43	.67	.21	.43	.67
Culture x G-All-D^2	-.23	-1.08	.29	-.08	-.25	.81	.02	.04	.97
ΔR^2 =	.17								
IS				.32	1.01	.33	.33	.91	.38
IS x Cult.				-.26	-.96	.35	-.27	-.92	.37
IS x G-All-D^2				1.15	2.45	.03	1.17	2.23	.04
IS x Cult. x G-All-D^2				-.69	-1.55	.14	-.53	-.95	.36
ΔR^2 =	.25								
GPA							-.19	-.81	.43
Social Skill							-.02	-.07	.94
Supervisory Exp.							-.12	-.51	.62
ΔR^2 =	.04								
Model R^2 =	.17			.42			.46		
Adjusted R^2 =	.01			.15			.03		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 62: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important and unimportant values, Initiating structure, and Leader characteristics predicting Cohesion: Group Task Integration

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.80	.00	—	6.43	.00	—	1.88	.08
Group Size	-.04	-.14	.89	.14	.59	.57	.09	.37	.72
Culture	-.22	-.89	.38	.16	.73	.47	.21	.74	.47
G-All-D^2	.11	.47	.64	.49	1.45	.17	.59	1.48	.16
Culture x G-All-D^2	-.09	-.42	.68	.30	1.09	.29	.31	.88	.40
ΔR^2 =	.07								
IS				.54	2.08	.05	.60	1.97	.07
IS x Cult.				.50	2.26	.04	.48	1.97	.07
IS x G-All-D^2				-.47	-1.23	.24	-.38	-.86	.40
IS x Cult. x G-All-D^2				1.00	2.73	.01	1.03	2.19	.05
ΔR^2 =	.54**								
GPA							-.04	-.21	.84
Social Skill							-.11	-.47	.65
Supervisory Exp.							.12	.61	.55
ΔR^2 =	.02								
Model R^2 =	.07			.61			.63		
Adjusted R^2 =	-.10			.43			.33		

*$p \leq .05$. **$p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	6.03	0.00	—	4.03	0.00
Group Size	0.44	1.68	0.13	-0.24	-0.82	0.44
G-All-D^2	1.42	2.44	0.04	-0.04	-0.13	0.90
IS	1.19	4.13	0.00	-0.19	-0.50	0.63
IS x G-All-D^2	0.87	1.80	0.11	-0.97	-2.38	0.05

Table 63: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Consideration, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.23	.23	—	1.71	.11	—	-.37	.71
Group Size	.27	.99	.34	.32	1.58	.13	.45	1.89	.08
Culture	.04	.17	.87	.26	1.38	.19	.30	1.36	.20
G-Imp-D^2	-.38	-1.16	.26	-.30	-1.12	.28	-.40	-1.20	.25
Culture x G-Imp-D^2	.73	2.19	.04	.68	2.39	.03	.89	2.38	.03
ΔR^2 =	.21								
Consid				.19	.82	.42	.15	.56	.58
Con x Cult.				-.78	-3.54	.00	-.80	-3.35	.01
Con x G-Imp-D^2				-.31	-1.15	.27	-.29	-1.02	.33
Con x Cult. x G-Imp-D^2				-.78	-3.37	.00	-.86	-3.32	.01
ΔR^2 =	.48**								
GPA							.19	.92	.38
Social Skill							.08	.46	.66
Supervisory Exp.							-.14	-.72	.48
ΔR^2 =	.03								
Model R^2 =	.21			.69			.72		
Adjusted R^2 =	.04			.53			.47		

*p ≤ .05. **p ≤ .01.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	2.40	.04	—	-.68	.52
Group Size	.12	.44	.67	.50	2.64	.03
G-Imp-D^2	.33	1.29	.23	-1.06	-2.71	.03
Consid	-.86	-2.43	.04	.89	5.13	.00
Con x G-Imp-D^2	-1.27	-3.76	.00	1.17	2.82	.03

Table 64: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.36	.72	—	.95	.36	—	-.37	.72
Group Size	.34	1.19	.25	.27	1.23	.24	.30	1.09	.30
Culture	.01	.05	.96	.31	1.48	.16	.24	.96	.35
G-Imp-D^2	-.43	-1.27	.22	-.07	-.23	.82	.02	.04	.97
Culture x G-Imp-D^2	.47	1.39	.18	.13	.43	.68	.04	.09	.93
ΔR^2 =	.17								
Consid				-.10	-.40	.70	-.18	-.57	.58
Con x Cult.				-.82	-3.39	.00	-.85	-3.16	.01
Con x G-Imp-D^2				-.73	-2.51	.02	-.78	-2.39	.03
Con x Cult. x G-Imp-D^2				-.48	-1.91	.08	-.47	-1.62	.13
ΔR^2 =	.46								
GPA							-.06	-.26	.80
Social Skill							.16	.78	.45
Supervisory Exp.							.02	.10	.93
ΔR^2 =	.02								
Model R^2 =	.17			.63			.65		
Adjusted R^2 =	-.01			.43			.32		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 65: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Consideration, and Leader characteristics predicting Structural integrity.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.11	.91	—	.16	.87	—	-.09	.93
Group Size	.50	1.76	.09	.53	1.91	.08	.66	2.08	.06
Culture	-.02	-.10	.93	.15	.58	.57	.33	1.14	.28
G-Imp-D^2	-.20	-.59	.56	-.24	-.64	.53	-.41	-.93	.37
Culture x G-Imp-D^2	.44	1.30	.21	.52	1.33	.20	.90	1.82	.09
ΔR^2 =	.18								
Consid				-.06	-.18	.86	-.06	-.16	.87
Con x Cult.				-.53	-1.75	.10	-.53	-1.69	.12
Con x G-Imp-D^2				-.29	-.81	.43	-.24	-.63	.54
Con x Cult. x G-Imp-D^2				-.66	-2.10	.05	-.82	-2.42	.03
ΔR^2 =	.24								
GPA							.42	1.54	.15
Social Skill							-.13	-.54	.60
Supervisory Exp.							-.10	-.39	.70
ΔR^2 =	.10								
Model R^2 =	.18				.42		.52		
Adjusted R^2 =	.01				.11		.09		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	.72	.49	—	-2.07	.08
Group Size	.31	.85	.42	.82	4.36	.00
G-Imp-D^2	.19	.53	.61	-1.09	-2.81	.03
Consid	-.60	-1.24	.24	.69	4.03	.01
Con x G-Imp-D^2	-.86	-1.87	.09	1.44	3.49	.01

Table 66: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Initiating structure, and Leader characteristics predicting Planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	8.82	.00	—	7.57	.00	—	1.24	.24
Group Size	-.25	-.94	.36	-.45	-1.26	.23	-.61	-1.50	.16
Culture	.01	.06	.96	-.08	-.27	.79	-.43	-1.33	.21
G-Imp-D^2	.60	1.89	.07	-.14	-.21	.84	-.16	-.19	.85
Culture x G-Imp-D^2	-.76	-2.35	.03	-1.05	-1.49	.16	-1.90	-2.13	.05
ΔR^2 =	.25								
IS				-.26	-.50	.63	-.85	-1.44	.18
IS x Cult.				-.59	-1.30	.21	-.63	-1.28	.22
IS x G-Imp-D^2				-.12	-.14	.89	-.91	-.98	.35
IS x Cult. x G-Imp-D^2				-.91	-1.20	.25	-.70	-.67	.51
ΔR^2 =	.08								
GPA							-.42	-1.12	.28
Social Skill							.43	1.50	.16
Supervisory Exp.							.03	.11	.92
ΔR^2 =	.17								
Model R^2 =	.25			.33			.50		
Adjusted R^2 =	.09			-.03			.04		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 67: Hierarchical moderated regression analysis for Culture, Squared differences referenced to groups' important values, Initiating structure, and Leader characteristics predicting Total planning performance.

	β	t	p	β	t	p	β	t	p
(Constant)	—	8.05	.00	—	7.30	.00	—	1.72	.11
Group Size	-.55	-2.15	.04	-.80	-2.44	.03	-.97	-2.45	.03
Culture	.11	.49	.63	-.01	-.06	.95	-.23	-.73	.48
G-Imp-D^2	.28	.94	.36	-.61	-.98	.34	-.46	-.56	.58
Culture x G-Imp-D^2	-.81	-2.64	.02	-1.31	-2.02	.06	-1.88	-2.16	.05
ΔR^2 =	.33								
IS				-.39	-.83	.42	-.77	-1.33	.21
IS x Cult.				-.62	-1.49	.16	-.56	-1.18	.26
IS x G-Imp-D^2				-.40	-.53	.61	-.95	-1.04	.32
IS x Cult. x G-Imp-D^2				-1.00	-1.44	.17	-.56	-.56	.59
ΔR^2 =	.11								
GPA							-.42	-1.17	.27
Social Skill							.19	.69	.50
Supervisory Exp.							.00	.02	.99
ΔR^2 =	.09								
Model R^2 =	.33			.44			.52		
Adjusted R^2 =	.19			.14			.09		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 68: Hierarchical moderated regression analysis for Culture, Differences referenced to groups' unimportant values, Initiating structure, and Leader characteristics predicting TMX.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.54	.00	—	5.38	.00	—	.32	.75
Group Size	.03	.13	.90	.35	1.41	.18	.47	1.57	.14
Culture	-.15	-.63	.53	-.31	-1.43	.17	-.36	-1.32	.21
G-Unimp-D^2	.02	.09	.93	.25	1.10	.29	.15	.49	.63
Culture x G-Unimp-D^2	-.36	-1.65	.11	-.19	-.87	.40	-.10	-.37	.72
$\Delta R^2 =$	.15								
IS				-.68	-2.69	.02	-.72	-2.54	.03
IS x Cult.				-.31	-1.34	.20	-.29	-1.12	.29
IS x G-Unimp-D^2				.84	2.54	.02	.86	2.41	.03
IS x Cult. x G-Unimp-D^2				.16	.57	.58	.14	.44	.67
$\Delta R^2 =$	.34								
GPA							.05	.18	.86
Social Skill							.21	.71	.49
Supervisory Exp.							-.17	-.76	.46
$\Delta R^2 =$	.04								
Model $R^2 =$	.15			.49			.53		
Adjusted $R^2 =$	-.03			.22			.09		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 69: Hierarchical moderated regression analysis for Culture, Differences referenced to groups' unimportant values, Consideration, and Leader characteristics predicting Cohesion: Individual Attraction to Task

	β	t	p	β	t	p	β	t	p
(Constant)	—	3.28	.00	—	3.84	.00	—	-.37	.72
Group Size	.04	.18	.86	.16	.88	.39	.25	1.53	.15
Culture	.01	.03	.98	.12	.72	.48	.31	1.89	.08
G-Unimp-D^2	.09	.38	.71	.12	.60	.56	-.08	-.42	.68
Culture x G-Unimp-D^2	-.35	-1.58	.13	-.31	-1.67	.12	-.39	-2.19	.05
ΔR^2 =	.12								
Consid				.74	3.98	.00	.63	3.79	.00
Con x Cult.				-.18	-1.02	.33	-.14	-.91	.38
Con x G-Unimp-D^2				-.21	-.72	.48	-.26	-1.06	.31
Con x Cult. x G-Unimp-D^2				.29	.97	.35	.43	1.61	.13
ΔR^2 =	.57**								
GPA							.51	3.03	.01
Social Skill							.08	.45	.66
Supervisory Exp.							.00	.00	1.00
ΔR^2 =	.14								
Model R^2 =	.12			.69			.82		
Adjusted R^2 =	-.07			.52			.66		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 70: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Consideration, and Leader characteristics predicting Quality of construction.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.53	.14	—	1.70	.11	—	.19	.85
Group Size	.21	.74	.47	.14	.49	.63	.21	.66	.52
Culture	-.04	-.15	.89	.23	.98	.34	.09	.33	.75
G-PS-D^2	.15	.62	.54	-.08	-.33	.74	-.04	-.17	.86
Culture x G-PS-D^2	.20	.90	.38	.21	.84	.41	.19	.62	.55
ΔR^2 =	.06								
Consid				.44	2.04	.06	.43	1.68	.12
Con x Cult.				-.43	-2.20	.04	-.49	-2.34	.03
Con x G-PS-D^2				-.21	-.82	.42	-.29	-1.04	.32
Con x Cult. x G-PS-D^2				-.31	-1.36	.19	-.29	-1.18	.26
ΔR^2 =	.40*								
GPA							-.19	-.84	.42
Social Skill							.14	.61	.55
Supervisory Exp.							-.18	-.80	.44
ΔR^2 =	.06								
Model R^2 =	.06			.46			.52		
Adjusted R^2 =	-.12			.20			.14		

*$p \leq .05$. **$p \leq .01$.

Table 71: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	.47	.64	—	1.37	.19	—	.18	.86
Group Size	.36	1.27	.22	.12	.44	.67	.11	.41	.69
Culture	-.15	-.58	.57	.15	.72	.48	-.02	-.10	.92
G-PS-D^2	.14	.59	.56	-.03	-.14	.89	.05	.21	.84
Culture x G-PS-D^2	.05	.23	.82	-.10	-.44	.67	-.24	-.87	.40
ΔR^2 =	.07								
Consid				.30	1.54	.14	.23	.99	.34
Con x Cult.				-.58	-3.23	.00	-.64	-3.47	.00
Con x G-PS-D^2				-.46	-1.98	.06	-.60	-2.41	.03
Con x Cult. x G-PS-D^2				-.18	-.84	.41	-.15	-.72	.48
ΔR^2 =	.47**								
GPA							-.32	-1.58	.14
Social Skill							.17	.84	.41
Supervisory Exp.							-.04	-.19	.85
ΔR^2 =	.08								
Model R^2 =	.07			.55			.62		
Adjusted R^2 =	-.10			.33			.33		

*p ≤ .05. **p ≤ .01.

Table 72: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Initiating structure, and Leader characteristics predicting TMX.

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.97	.00	—	4.16	.00	—	.43	.67
Group Size	-.10	-.35	.73	.34	.98	.34	.49	1.39	.19
Culture	-.02	-.09	.93	-.13	-.54	.60	-.43	-1.52	.15
G-PS-D^2	-.23	-.94	.36	-.09	-.25	.81	-.12	-.32	.75
Culture x G-PS-D^2	.01	.04	.97	.29	.94	.36	.19	.50	.63
ΔR^2 =	.05								
IS				.02	.07	.95	-.11	-.30	.77
IS x Cult.				.06	.25	.81	.01	.06	.95
IS x G-PS-D^2				.90	2.34	.03	.87	1.91	.08
IS x Cult. x G-PS-D^2				.76	2.50	.02	.89	2.93	.01
ΔR^2 =	.35								
GPA							-.30	-1.31	.21
Social Skill							.31	1.17	.26
Supervisory Exp.							-.17	-.78	.45
ΔR^2 =	.14								
Model R^2 =	.05			.39			.53		
Adjusted R^2 =	-.13			.11			.16		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	1.18	.27	—	.17	.87
Group Size	-.18	-.47	.65	.26	.78	.46
G-PS-D^2	-2.97	-2.27	.05	-.04	-.11	.91
IS	-1.70	-2.00	.08	.12	.26	.80
IS x G-PS-D^2	-2.96	-2.45	.04	-.36	-.76	.47

Table 73: Hierarchical moderated regression analysis for Culture, Groups' Prosocial values, Initiating structure, and Leader characteristics predicting Planning adaptability.

	β	t	p	β	t	p	β	t	p
(Constant)	—	7.90	.00	—	5.84	.00	—	1.42	.18
Group Size	-.14	-.48	.63	.36	1.06	.31	.56	1.67	.12
Culture	.21	.80	.43	.07	.30	.77	-.21	-.80	.44
G-PS-D^2	-.05	-.20	.85	.07	.20	.85	.11	.31	.76
Culture x G-PS-D^2	-.12	-.52	.61	.15	.50	.62	.17	.47	.64
ΔR^2 =	.04								
IS				.05	.17	.87	.04	.10	.92
IS x Cult.				.11	.46	.65	.07	.30	.77
IS x G-PS-D^2				.90	2.37	.03	1.00	2.30	.04
IS x Cult. x G-PS-D^2				.87	2.90	.01	1.01	3.48	.00
ΔR^2 =	.38								
GPA							-.38	-1.74	.10
Social Skill							.20	.79	.44
Supervisory Exp.							-.21	-1.00	.34
ΔR^2 =	.16								
Model R^2 =	.04			.41			.57		
Adjusted R^2 =	-.15			.14			.24		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	5.34	.00	—	3.83	.01
Group Size	-.41	-.73	.49	.20	.69	.51
G-PS-D^2	-.71	-.72	.49	.04	.13	.90
IS	-.41	-.69	.51	.18	.64	.54
IS x G-PS-D^2	-.34	-.46	.66	.82	2.72	.03

Table 74: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Consideration, and Leader characteristics predicting Originality of design.

	β	t	p	β	t	p	β	t	p
(Constant)	—	1.13	.27	—	.76	.46	—	-.06	.96
Group Size	.21	.87	.40	.28	1.16	.26	.32	1.12	.28
Culture	-.07	-.28	.78	.08	.36	.73	-.04	-.17	.87
G-Ind-D^2	-.13	-.58	.57	-.19	-.71	.49	-.30	-.97	.35
Culture x G-Ind-D^2	-.08	-.37	.72	.00	-.01	.99	.05	.15	.88
ΔR^2 =	.08								
Consid				.51	2.28	.04	.52	2.09	.06
Con x Cult.				-.48	-2.37	.03	-.53	-2.36	.03
Con x G-Ind-D^2				.10	.37	.72	.11	.35	.73
Con x Cult. x G-Ind-D^2				-.10	-.37	.72	-.17	-.57	.58
ΔR^2 =	.33								
GPA							-.23	-.94	.36
Social Skill							.14	.52	.61
Supervisory Exp.							-.07	-.32	.75
ΔR^2 =	.05								
Model R^2 =	.08			.41			.46		
Adjusted R^2 =	-.09			.13			.03		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 75: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Interactional justice.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.75	.00	—	7.60	.00	—	1.21	.25
Group Size	.05	.19	.85	-.14	-.54	.60	-.08	-.28	.78
Culture	-.11	-.46	.65	-.01	-.03	.98	-.17	-.54	.60
G-Ind-D^2	-.10	-.44	.67	-.09	-.26	.80	-.28	-.83	.42
Culture x G-Ind-D^2	.02	.08	.93	.29	.94	.36	.42	1.30	.21
ΔR^2 =	.02								
IS				-.62	-1.93	.07	-.79	-2.32	.04
IS x Cult.				-.07	-.23	.82	-.05	-.17	.87
IS x G-Ind-D^2				.01	.02	.98	-.14	-.27	.79
IS x Cult. x G-Ind-D^2				.56	1.04	.31	.79	1.29	.22
ΔR^2 =	.28								
GPA							-.31	-1.17	.26
Social Skill							.23	.85	.41
Supervisory Exp.							-.27	-1.20	.25
ΔR^2 =	.13								
Model R^2 =	.02			.30			.43		
Adjusted R^2 =	-.16			-.03			-.02		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 76: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Depth of planning.

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.11	.00	—	7.02	.00	—	1.38	.19
Group Size	-.33	-1.54	.14	-.36	-1.79	.09	-.33	-1.44	.17
Culture	.26	1.24	.23	.15	.65	.53	.09	.36	.72
G-Ind-D^2	-.33	-1.70	.10	.12	.45	.66	.00	.00	1.00
Culture x G-Ind-D^2	-.35	-1.88	.07	-.36	-1.46	.16	-.25	-.97	.35
ΔR^2 =	.31								
IS				.18	.70	.49	.10	.35	.73
IS x Cult.				-.51	-2.11	.05	-.50	-2.05	.06
IS x G-Ind-D^2				1.07	2.74	.01	.98	2.38	.03
IS x Cult. x G-Ind-D^2				-.57	-1.33	.20	-.38	-.78	.45
ΔR^2 =	.25								
GPA							-.15	-.70	.50
Social Skill							.07	.33	.75
Supervisory Exp.							-.27	-1.51	.15
ΔR^2 =	.07								
Model R^2 =	.31			.56			.63		
Adjusted R^2 =	.18			.35			.34		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 77: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Cohesion: Individual Attraction to Task.

	β	t	p	β	t	p	β	t	p
(Constant)	—	4.01	.00	—	4.78	.00	—	1.01	.33
Group Size	-.11	-.46	.65	-.10	-.50	.62	-.11	-.45	.66
Culture	.06	.23	.82	.53	2.33	.03	.58	2.05	.06
G-Ind-D^2	-.08	-.34	.74	-.03	-.10	.92	.04	.12	.90
Culture x G-Ind-D^2	-.22	-.99	.33	.17	.67	.51	.13	.47	.64
ΔR^2 =	.06								
IS				.12	.48	.64	.18	.61	.55
IS x Cult.				.43	1.79	.09	.43	1.61	.13
IS x G-Ind-D^2				-.83	-2.10	.05	-.78	-1.74	.10
IS x Cult. x G-Ind-D^2				1.26	2.91	.01	1.18	2.21	.04
ΔR^2 =	.49**								
GPA							.11	.47	.64
Social Skill							-.06	-.27	.79
Supervisory Exp.							.07	.35	.73
ΔR^2 =	.01								
Model R^2 =	.06			.55			.57		
Adjusted R^2 =	-.12			.34			.23		

*$p \leq .05$. **$p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	6.20	.00	—	1.44	.19
Group Size	-.21	-.92	.38	.03	.11	.92
G-Ind-D^2	.18	.46	.65	-.11	-.30	.77
IS	.57	2.45	.04	-.28	-.55	.60
IS x G-Ind-D^2	.52	1.42	.19	-.94	-1.91	.10

Table 78: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Consideration, and Leader characteristics predicting Cohesion: Individual Social Attraction

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.31	.00	—	5.85	.00	—	.90	.38
Group Size	-.21	-.86	.40	.04	.25	.81	.10	.47	.64
Culture	-.08	-.34	.74	.03	.21	.84	.06	.33	.75
G-Ind-D^2	-.17	-.78	.45	-.30	-1.55	.14	-.31	-1.37	.19
Culture x G-Ind-D^2	-.06	-.28	.78	.15	.72	.48	.21	.84	.42
$\Delta R^2 =$	.09								
Consid				.80	4.89	.00	.82	4.57	.00
Con x Cult.				-.37	-2.48	.02	-.37	-2.26	.04
Con x G-Ind-D^2				.44	2.31	.03	.50	2.15	.05
Con x Cult. x G-Ind-D^2				-.04	-.21	.83	-.03	-.16	.88
$\Delta R^2 =$	.60**								
GPA							.15	.83	.42
Social Skill							.02	.09	.93
Supervisory Exp.							-.12	-.71	.49
$\Delta R^2 =$	.02								
Model $R^2 =$	.09			.69			.71		
Adjusted $R^2 =$	-.08			.54			.48		

$^{*}p \leq .05$. $^{**}p \leq .01$.

Table 79: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Cohesion: Group Social Integration

	β	t	p	β	t	p	β	t	p
(Constant)	—	6.92	.00	—	7.16	.00	—	3.06	.01
Group Size	-.35	-1.50	.15	-.37	-1.67	.11	-.57	-2.31	.04
Culture	-.13	-.57	.57	.14	.56	.58	.25	.90	.38
G-Ind-D^2	-.19	-.92	.37	-.45	-1.59	.13	-.51	-1.70	.11
Culture x G-Ind-D^2	-.04	-.21	.84	.03	.11	.92	.02	.08	.93
ΔR^2 =	.20								
IS				-.10	-.35	.73	-.21	-.70	.49
IS x Cult.				.23	.88	.39	.17	.65	.52
IS x G-Ind-D^2				-.97	-2.24	.04	-1.16	-2.61	.02
IS x Cult. x G-Ind-D^2				.81	1.72	.10	1.20	2.27	.04
ΔR^2 =	.27								
GPA							-.33	-1.42	.18
Social Skill							-.28	-1.20	.25
Supervisory Exp.							.11	.58	.57
ΔR^2 =	.11								
Model R^2 =	.20			.47			.57		
Adjusted R^2 =	.04			.21			.24		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	7.13	0.00	—	3.26	0.01
Group Size	0.02	0.08	0.94	-0.04	-0.14	0.89
G-Ind-D^2	0.56	1.34	0.21	-0.06	-0.15	0.88
IS	0.73	2.86	0.02	-0.13	-0.25	0.81
IS x G-Ind-D^2	0.49	1.21	0.26	-0.81	-1.58	0.16

Table 80: Hierarchical moderated regression analysis for Culture, Differences referenced to Groups' Individualistic values, Initiating structure, and Leader characteristics predicting Total cohesion.

	β	t	p	β	t	p	β	t	p
(Constant)	—	5.94	.00	—	6.84	.00	—	2.17	.05
Group Size	-.19	-.77	.45	-.17	-.80	.44	-.28	-1.09	.29
Culture	-.08	-.33	.74	.35	1.49	.16	.45	1.55	.14
G-Ind-D^2	-.10	-.46	.65	-.04	-.15	.88	-.02	-.06	.95
Culture x G-Ind-D^2	-.14	-.63	.53	.19	.73	.47	.16	.56	.58
ΔR^2 =	.08								
IS				.18	.68	.51	.17	.56	.59
IS x Cult.				.37	1.48	.16	.34	1.25	.23
IS x G-Ind-D^2				-.73	-1.79	.09	-.79	-1.74	.10
IS x Cult. x G-Ind-D^2				1.10	2.45	.03	1.23	2.28	.04
ΔR^2 =	.44*								
GPA							-.08	-.34	.74
Social Skill							-.19	-.80	.44
Supervisory Exp.							.11	.54	.60
ΔR^2 =	.03								
Model R^2 =	.08			.52			.55		
Adjusted R^2 =	-.09			.30			.20		

$^{*}p \leq .05$. $^{**}p \leq .01$.

	Organic culture			Mechanistic culture		
	β	t	p	β	t	p
(Constant)	—	7.57	.00	—	2.51	.04
Group Size	-.29	-1.14	.28	-.01	-.03	.98
G-Ind-D^2	.18	.43	.68	-.14	-.39	.71
IS	.55	2.16	.06	-.18	-.34	.74
IS x G-Ind-D^2	.42	1.06	.32	-.85	-1.67	.14

Figure 1: Sample scenario item from Values Measure.

27

Several years ago you had some unanticipated health problems from which you are not likely to fully recover. Your life savings were used to pay some of the medical expenses, but you are still in debt. You still have a job, but have had to cut back your hours due to your poor health. It is difficult for you to meet the financial obligations you have. Your children are almost in high school and you are worried about not having money for them to go to college. Their job prospects will be limited if they do not go.

1. What are the critical problems in this situation? (Circle 2)
   - a Your children will not have the opportunity to go to college.
   - b Your health may continue to worsen.
   - c Your savings will be used up to pay medical expenses.
   - d You will have family conflict due to all these pressures.
   - e You may lose your job.
   - f You may have to depend on welfare.
   - g You will not be able to continue neighborhood activities.
   - h You will have to move to an unsafe neighborhood to get by.

2. How will you ensure a good future for your children? (Circle 3)
   - a Try to supplement your children's education with learning at home.
   - b Teach your children to be more expressive and artistic.
   - c Research all the possible scholarship opportunities available to your children.
   - d Make contacts with family members to help support your situation.
   - e Attend more religious functions for social support.
   - f Go to the public library regularly with your children.
   - g Have your children become involved in sports.
   - h Teach respect to your children.
   - i Teach your children the difference between wrong and right.

3. What would you do if your health fully returned to you? (Circle 3)
   - a Save money for your children's college education.
   - b Make sure you get plenty of exercise to build up your strength.
   - c Go on a vacation with your family.
   - d Go back to work full-time.
   - e Give money to organizations that support people in need.
   - f Get your debts paid off as soon as possible.
   - g Contribute more time to your church.
   - h Enroll your children in a school that emphasizes a liberal arts education.
   - i Have your children take summer classes at the vo-tech school.
   - j Spend as much time as possible with your family.

Figure 2: Instructions for rating group task for quality of construction

Quality of construction

Summary of subject's instructions

- Using the K'nex materials, build a model of a bridge. If you do not have enough string, indicate on the cost worksheet where you would put additional string and I will add it into the cost of the bridge.
- The minimum requirements of the bridge are 24" x 6" x 6." This will allow two lanes of traffic to cross the bridge and traffic to pass underneath. Note: the scenario may be interpreted to mean that the bridge will span the space between two hills and may be built without support underneath. Thus, bridges may lie flat.
- Different goals are available for the bridge – e.g. cost, size, originality, sturdiness, etc.
- Use construction paper to make the asphalt/concrete road. Construction paper has no cost.

The subject's answers should be evaluated (rated on a scale from 1 to 5) using the following dimensions:

Completeness:	Did they understand the instructions, use the information and materials, and follow the instructions fully and completely with enough detail to meet the requirements of the project?
Design and Construction:	Is the design symmetrical, well proportioned, planned out, constructed with care?
Effectiveness:	Is the model likely to meet the needs of the project?

1. Bridge does meet minimum measurements. Missing pieces (seen when comparing two sides of the bridge) or incomplete construction. Model would not have the desired outcome. Major deficiencies in construction, which cause questions as to how the bridge would be able to function. Poor construction seen in "jury rigged" design, where additions are made in attempts to correct for poor design instead of redesigning and rebuilding.
2. One major piece or several minor ones are missing from model or a major step of construction is not included. Only part of the desired outcome of the plan is achievable with the bridge, but majority of the desired outcomes will not be attained. Key aspects of the bridge are poorly designed or construction.
3. A few minor steps are missing and yet are necessary to the bridge to work completely. Major aspects of the desired outcome are likely to be achieved. Major parts of the plan are adequately designed, but several parts seem unplanned.
4. Minor parts of the bridge are poorly designed or seem to be put together at the last moment, but none that are central to the bridge. Most of the desired outcomes are likely to occur.
5. All aspects of the bridge seem to be designed and constructed well. The different parts of the bridge are well integrated and make a coherent deign. All of the desired outcomes are likely.

Figure 3: Instructions for rating group task for originality of design

Originality of design

Summary of subject's instructions

- Using the K'nex materials, build a model of a bridge. If you do not have enough string, indicate on the cost worksheet where you would put additional string and I will add it into the cost of the bridge.
- The minimum requirements of the bridge are 24" x 6" x 6." This will allow two lanes of traffic to cross the bridge and traffic to pass underneath. Note: the scenario may be interpreted to mean that the bridge will span the space between two hills and may be built without support underneath. Thus, bridges may lie flat.
- Different goals are available for the bridge – e.g. cost, originality, sturdiness, etc.
- Use construction paper to make the asphalt/concrete road. Construction paper has no cost.

Each model should be evaluated (rated on a scale from 1 to 5) using the following dimensions:

Unexpected	Did they approach the problem in a novel, imaginative, unpredictable, or innovative manner?
Details	Did they expand upon an idea or basic model in such a way as to help visualize details of the bridge as it would be built?
Newness	Did they go beyond the stimulus materials provided to include additional material and designs?

1. Very predictable model, design is prevalent. Model is very basic or simplistic. Model uses the materials provided in straightforward and ordinary ways.
2. The model may be seen often, but not obviously so. Model includes a very basic design or feature not provided in the material, perhaps used to elaborate a single new aspect of the basic model.
3. Bridge would be comparable to some existing bridges, but design is not completely typical; the design would have added value. A simple example is used to illustrate the essentials of the plan. The subject may use new information, but information seems general, not specific to the subject.
4. The design has a 'twist,' something that makes it different, but builds upon a typical model of a bridge. Design has a few examples to illustrate a couple of aspects of the plan or to meet needs/goals, but the description/construction is not complete. Subject includes information that is not in the materials, but does not go far beyond it (simple elaboration).
5. Design has aspects that make it unique or reaches a market that has not been tapped in the same manner very often. Uses examples to illustrate the majority of the plan and to meet needs/goals. The group includes a large amount of information that is unique to its members.

Figure 4: Instructions for rating Structural integrity

Structural integrity

Summary of subject's instructions

- Using the K'nex materials, build a model of a bridge. If you do not have enough string, indicate on the cost worksheet where you would put additional string and I will add it into the cost of the bridge.
- The minimum requirements of the bridge are 24" x 6" x 6." This will allow two lanes of traffic to cross the bridge and traffic to pass underneath. Note: the scenario may be interpreted to mean that the bridge will span the space between two hills and may be built without support underneath. Thus, bridges may lie flat.
- Different goals are available for the bridge – e.g. cost, size, originality, sturdiness, etc.
- Use construction paper to make the asphalt/concrete road. Construction paper has no cost.

Instructions to raters

- Assume that bridges could be placed on two hills and cars can drive underneath. Do not assume any further support, unless model has them.
- Assume that supports going horizontally at the bottom of the bridge would be embedded in concrete/asphalt.
- A couple of bridges at the beginning were not photographed from underneath. These bridges had basic supports connecting the joints along the edge. I only started photographing consistently about 1/3 of the way through. Otherwise, I only photographed from underneath whenever a bridge strayed (more or less sound) from this standard design.
- In rating bridges, use theories of bridge design, and assume that all rods are made of the same material, that connections are equal in strength, and that the materials are comparable to what is "typically" used in construction. Scale your ratings to take into consideration that these students aren't trained engineers or architects.

This was followed by training of how braces worked and the relative strengths of the different types of braces lasting approximately 10 minutes.