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LEADER GROUP PROTOTYPICALITY AND RESISTANCE TO ORGANIZATIONAL CHANGE: THE MODERATING ROLE OF NEED FOR CLOSURE AND TEAM IDENTIFICATION

ANTONIO PIERRO
LAVINIA CICERO
MARINO BONAIUTO
UNIVERSITY OF ROMA "LA SAPIENZA"
DAAN VAN KNIPPENBERG
ERASMUS UNIVERSITY ROOTTERDAM
ARIE W. KRUGLANSKI
UNIVERSITY OF MARYLAND

The present study aimed to examine the relationship between leader group prototypicality (the extent to which a leader is representative of the collective identity) and followers' resistance to organizational change. Specifically, leader group prototypicality was expected to interact with individual differences in need for cognitive closure and team identification, such that leader group prototypicality was related most positively to follower willingness to change for followers with relatively high need for closure and team identification. Results of a cross-sectional survey (N = 102) of the employees of a large Italian aerospace company provided support for the proposed three-way interaction among leader prototypicality, need for cognitive closure, and team identification. We discuss how these findings both advance our understanding of leadership of change and extend the social identity analysis of leadership.

Key words: Social identity; Leader group prototypicality; Need for closure; Uncertainty; Organizational change.

Correspondence concerning this article should be addressed to Antonio Pierro, Dipartimento di Psicologia dei Processi di Sviluppo e Socializzazione, Università degli Studi di Roma "La Sapienza", Via dei Marsi 78, 00185 ROMA (RM), Italy. E-mail: antonio.pierro@uniroma1.it

INTRODUCTION[1]

One of the core obstacles to successful organizational change may be employees' unwillingness to support the change (Conner, 1995). An important component of effective leadership of change therefore seems to be to overcome employee resistance to change — an issue that somewhat surprisingly has received little attention in both the leadership and the organizational change literatures (Yukl, 2001). Addressing this issue, in the present study we argue that resistance to organizational change may be understood from a social identity perspective because resistance to change may often be inspired by perceived threats to social (i.e., organizational) identity associated with the change. We argue, following from this, that leader group prototypicality (leader's representativeness of the collective identity; e.g., Hogg, 2001) would be positively re-

lated to willingness to change, especially for individuals with a high dispositional need to reduce uncertainty (i.e., high need for cognitive closure) and strong team identification (i.e., for whom changes to the organization may be expected to be most threatening to social identity).

Resistance to Change, Social Identity, and the Role of Leadership

Employee resistance to change has been quoted as one of the main problems in effective organizational change, and social identity analyses of organizational change have pointed to identity concerns as a major factor in resistance to change (e.g., Rousseau, 1998; Terry, Carey, & Callan, 2001; van Knippenberg & van Knippenberg, 2004). Indeed, the social identity approach — an integrated perspective derived from the Social Identity Theory (Tajfel, 1982; Tajfel & Turner, 1979, 1986) and Self-Categorization Theory (Turner, 1982, 1985, 1987) — describes how memberships in groups and organizations may be self-definitional, and may become a core part of how individuals conceive the self (Ashforth & Mael, 1989; Haslam, 2001; Hogg, 2003; Tajfel & Turner, 1986; Turner & Haslam, 2001; Turner, Hogg, Oakes, Reicher, & Whetherell, 1987). Organizational changes may also affect the identity of the organization (Albert & Wetten, 1985). As a consequence, organizational change may imply changes in employees' self-definition to the extent that self-definition is tied to the organizational membership. People, usually, tend to favor and strive for consistency in their self-perceptions, and then their continuity of identity may be threatened by organizational changes (Rousseau, 1998; Shamir, 1999; van Knippenberg, van Knippenberg, Monden, & de Lima, 2002). Therefore, organizational change may inspire resistance if it is seen as a change to a valued identity (van Knippenberg & van Knippenberg, 2004; van Knippenberg & van Leeuwen, 2001).

Analysis of organizational change has pointed to the central role that leadership may play in effective organizational change, especially where it concerns overcoming resistance to change (e.g., Bass, 1985; Conger & Kanungo, 1987; Yukl, 2001). For instance, a change-oriented vision for the group or organization is a relevant feature of charismatic leadership: charismatic leaders tend to be more effective change agents than non-charismatic leaders (e.g., Bass, 1998; Conger & Kanungo, 1998; Howell & Higgins, 1990). More recently, resistance to organizational change has also been analyzed within the social identity approach to leadership (e.g., Bobbio, van Knippenberg, & van Knippenberg, 2005; van Knippenberg & van Knippenberg , 2005). This analysis points to the need for leadership of change to cater to employee identity and self-categorization concerns, and identifies leader group prototypicality — the extent to which the leader is representative of the shared social identity (Hogg, 2001) — as a key factor in overcoming resistance to change.

Leader Group Prototypicality and Resistance to Change

The social identity approach (Hogg & Abrams, 1988; Turner et al., 1987) stated that for people who identify with a group (i.e., the group membership is self-defining) group prototypes — cognitive representations of the shared social identity — are an important reference point and a source of information about social reality (Turner et al., 1987). Some group members will be more similar to these cognitive representations of the group identity, in other words, more group

prototypical. Prototypical group members, then, exemplify group normative behavior and reflect what members of the group have in common and what sets them apart from other groups (Hogg, 2001).

The social identity analysis of leadership (Haslam, 2001; Hogg, 2001; Turner, 1991; Turner & Haslam, 2001; for review see also Hogg & van Knippenberg, 2003; Reicher & Hopkins, 2001, 2003; van Knippenberg & Hogg, 2003; van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2004) highlighted that group members are more open to the influence of group prototypical leaders (cf. van Knippenberg, Lossie, & Wilke, 1994) and they are more likely to trust group prototypical leaders as they have the group's best interest at heart (Giessner, Sleebos, & van Knippenberg, 2003; van Knippenberg & van Knippenberg, 2005). This greater effectiveness in influencing and mobilizing followers of prototypical, as compared with nonprototypical leaders, is supported by a range of experimental and field studies conducted in different contexts (see also, Cicero, Bonaiuto, Pierro, & van Knippenberg, in press; Fielding & Hogg, 1997; Hains, Hogg, & Duck, 1997; Hogg, Hains, & Mason, 1998; Platow & van Knippenberg, 2001; Platow, van Knippenberg, Haslam, van Knippenberg, & Spears, 2006; van Knippenberg & van Knippenberg, 2005).

Indeed, leader group prototypicality may be seen as linked to leader effectiveness in engendering openness to organizational change. Because group prototypical leaders are seen as representatives of the shared sense of social identity (Haslam, 2001; Hogg, 2001) they are more likely to be seen as ensuring continuity of identity in times of change, too. Van Knippenberg and van Knippenberg (2005), accordingly, found in their field study that leader prototypicality (and leader self-sacrifice) was positively related to followers' willingness to change. Also, Bobbio et al. (2005) showed across two scenario experiments that more prototypical leaders inspired greater willingness to change because they ensured more a sense of continuity of the organizational identity. In a similar vein, we propose, in the present study, to extend this previous analysis on organizational change by focusing on two moderators of the relationship between leader prototypicality and follower willingness to change: tolerance for uncertainty, as it is reflected in individual differences in need for cognitive closure, and employee team identification.

Need for Closure, Leader Prototypicality, and Willingness to Change

One of the most relevant conditions related to organizational change is uncertainty (see Bordia, Hobman, Jones, Gallois, & Callan, 2004); especially when people feel uncertainty about something that is important for them, they will engage in strategies to reduce uncertainty. Organizational change often leads to uncertainty that may affect employees' behaviors. As some scholars highlighted, the desire to reduce uncertainty is also a relevant aspect related to group membership, and the shared social reality provided by group memberships (i.e., prototypical representations of groups) may reduce uncertainty (Grieve & Hogg, 1999; Hogg, 2000; Mullin & Hogg, 1998, 1999). This should render group members more sensitive to the group prototypicality of the leader and enhance their preference for group prototypical leaders. We may expect, accordingly, that followers with a greater desire to reduce uncertainty are more affected by leader group prototypicality (cf. van Knippenberg, van Knippenberg, & van Dijk, 2000).

People's tolerance for uncertainty and desire to reduce uncertainty is well represented by the concept of need for cognitive closure (Kruglanski & Webster, 1996) — the desire for a defi-

nite answer to a question and the eschewal of ambiguity. Such a concept may be treated both as a dispositional variable (Webster & Kruglanski, 1994) and as situationally determined by different conditions, such as time-pressure (Kruglanski & Freund, 1983), noise or mental fatigue (Kruglanski, Webster, & Klem, 1993; Webster, Richter, & Kruglanski, 1996). The need for closure favors a desire for consensus or for shared reality within a group condition (Pierro, Mannetti, De Grada, Livi, & Kruglanski, 2003). If groups typically are "reality providers," it stands to reason that persons with a high need for closure would be biased in their favor (Shah, Kruglanski, & Thompson, 1998). Also, in conditions of high need for closure (dispositional or situational) group members encourage the emergence of autocratic or hierarchical leadership (Pierro et al., 2003), where consensus may be easier to achieve.

Several lines of evidence (see, for review, Kruglanski, 2004) support the idea that the need for closure induces the tendency to preserve established knowledge and promotes the resistance to change. For instance, recent reviews highlighted the relationship between dispositional level of need for closure and different measures of political and economic conservatism (e.g., Jost, Glaser, Kruglanski, & Sulloway, 2003a, 2003b) and the positive relationship between need for closure and the tendency to preserve the *status quo* (Golec, 2002). Such tendency toward stability and the maintenance of existing knowledge may lead people presenting a high level of dispositional need for closure to be less open to organizational change. Kruglanski, Pierro, Higgins, and Capozza (in press) in fact found out that, even though high need for closure individuals are generally averse to change, in those case in which reality contains norms that encourage change and innovation such tendency would mitigate and people would search and use information from the surrounding environment, as a source of "social reality," to cope with change.

Moreover, recently Pierro, Cicero, Bonaiuto, van Knippenberg, and Kruglanski (2005) found that leader prototypicality was more strongly related to several indicators of leadership effectiveness for those employees characterized by higher level of need for closure within working organizations. These findings are aligned with the uncertainty reduction hypothesis (e.g. Hogg, 2001) and confirmed that the individual differences in need for closure (as a factor linked to the desire to reduce uncertainty) would moderate the relationship between leader group prototypicality and leadership effectiveness. Similarly, in this contribution we expect this moderating effect of need for closure to hold especially for resistance to, or openness to, organizational change where uncertainty typically is a salient factor. Accordingly, especially in times of change individual differences in need for closure, and the associated tolerance for uncertainty, may inform responses to leadership.

Identification, Leader Prototypicality, and Willingness to Change

Central to the social identity analysis of leadership is the proposition that leader group prototypicality only informs responses to leadership to the extent that people identify with the group and group membership is salient (Haslam, 2001; Hogg, 2001; Hogg & van Knippenberg, 2003; Turner & Haslam, 2001; van Knippenberg et al., 2004). Only to the extent that group membership is self-definitional group prototypes will function as a source of information about social reality, and leader group prototypicality will feed into attraction to, and trust in the leader (e.g., Fielding & Hogg, 1997; Hains et al., 1997; Hogg et al., 1998; Platow & van Knippenberg,

2001). We expect this moderating role of social identification to be especially important in times of organizational change. Only to the extent that their group membership is self-defining will the changes to organizational identity, implied by organizational change, elicit social identity concerns among employees (see van Knippenberg et al., 2002). Accordingly, because it is these social identity concerns that lead followers to rely on leader group prototypicality in times of change (see Bobbio et al., 2005), we propose that for resistance and openness to change social identification is an important moderator of the influence of leader group prototypicality.

Need for Closure, Identification, and Leader Group Prototypicality

Whereas the interactions between leader prototypicality and follower need for closure and between leader prototypicality and follower identification may be seen as a mere replication of earlier findings concerning employee willingness to change (cf. Pierro et al., 2003; van Knippenberg et al., 2004), the present study try also to extend earlier work by proposing that both need for closure and identification moderate the relationship between leader prototypicality and willingness to change. Then, we propose that the uncertainty inherent in organizational change may lead especially individuals high in need for closure to rely on leader group prototypicality which furnish a social and shared reality to escape uncertainty (e.g., Pierro et al., 2003). Also, since the group identification is a relevant factor which may affect the impact of perception of leader group prototypicality (e.g., Hogg, 2001), this relationship should hold only to the extent that the individual identifies with the group. The group, in fact, will be a more salient source of information about social reality for group members that identify more strongly with the group, and, only to the extent that the group is seen as a source of social reality, the reliance on group membership (and thus the leader prototypicality) may reduce uncertainty. Therefore, it is possible to suppose that the more people would identify with their team and the more they show need for closure, the more a high prototypical leader may help them to escape uncertainty feelings being more open toward organizational change. Then, we expect a three-way interaction of follower need for closure, follower social identification, and leader prototypicality in predicting follower willingness/openness to change.

This hypothesis was tested in a cross-sectional study conducted in a large Italian company where an ownership change occurred four months before the study. In July 2003, the company underwent a change in the shareholders structure: 70% of shares were transferred to a financial institution while the remaining 30% to an Italian aerospace group, the whole aerospace activities form part of the new company with the same structure and strategy. All the employees (and consequently participants) were aware of such organizational change.

METHOD

Sample

The sample consisted of 102 employees of a large Italian aerospace company, 82.4 % men and 17.6 % women, with mean age of 39.48 years (*SD* = 6.75), and with mean tenure of

10.58 years (*SD* = 6.04). Most of the participants (71.05 %) had a degree, 26.5 % a high school diploma, and 2 % a lower school diploma.

Procedure and Instrument

Study variables were assessed in a questionnaire that was administered in group sessions organized in collaboration with the human resource manager. The questionnaire included the following measures: Need for Closure Scale, Team Identification Scale, Leader Group Prototypicality Scale, Openness toward Organizational Change Scale.

Need for Closure Scale (NFCS). The Italian version (De Grada, Kruglanski, Mannetti, Pierro, & Webster, 1996; Mannetti, Pierro, Kruglanski, Taris, & Bezinovic, 2002; Pierro et al., 1995) of the Need for Cognitive Closure Scale (NFCS) (Webster & Kruglanski, 1994) constitutes a 35-items self-report instrument, designed to assess stable individual differences in the need for (or the need to avoid) cognitive closure. The scale requires respondents to rate the extent to which they agree with statements reflecting a preference for closure (e.g., "I would rather know bad news than stay in a state of uncertainty") and statements reflecting a desire to avoid closure (e.g., "I tend to put off making important decisions until the last possible moment"). As in the English version, participants responses were recorded on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite need for closure score was computed by summing across responses to items (after reverse-scoring those items reflecting a tendency to avoid closure). Previous studies (De Grada et al., 1996; Mannetti et al., 2002; Pierro et al., 1995) have demonstrated that the Italian version of NFCS has a satisfactory reliability (Cronbach's alpha =.86). In the present study too, reliability (Cronbach's alpha) of the NFCS was satisfactory, equal to .78.

Team Identification. Participants respond to six items derived by Mael and Ashforth (1992; see also van Knippenberg & van Schie, 2000; e. g. "My work team successes are my successes"). Participants were told to think about their work team. Their responses were recorded on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite Team Identification score was computed by summing across responses to items. Reliability (Cronbach's alpha) of the team identification measure was satisfactory, equal to .94.

Leader Group Prototypicality. Participants responded to five items derived from Platow and van Knippenberg (2001) and van Knippenberg and van Knippenberg (2005; e. g. "This team leader is a good example of the kind of people that are member of my team"). Participants were asked to refer to their work team leader. Responses were recorded on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite leader group prototypicality score was computed by summing across responses to each item (Cronbach's alpha = .91).

Openness toward Organizational Change. Participants were asked to think about the change that occurred four months before within their company and to respond to three items based on the Openness toward Organizational Change Scale developed by Wanberg and Banas (2000; "I would consider myself open to the change occurring in my company"). Participants responses were recorded on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). A composite Openness toward Organizational Change score was computed by summing across responses to each item (Cronbach's alpha = .71).

RESULTS

A summary of descriptive statistics and correlations between all variables is presented in Table 1.

TABLE 1
Descriptive statistics and relations between variables

Variables	*M*	*SD*	1	2	3	4	5	6	7	8
1. Team identification	4.75	.84	(.94)							
2. Need for Closure	3.75	.34	–.05	(.78)						
3. Leader group prototypicality	3.96	.66	.29**	.18	(.91)					
4. Openness to organizational change	4.49	.87	.41***	–.21*	.23*	(.71)				
5. Gender	–	–	–.08	–.02	–.10	–.13	–			
6. Age	39.48	6.75	.11	.15	.08	.16	–.17	–		
7. Seniority	10.58	6.05	.06	.07	–.04	.10	–.05	.78***	–	
8. Education	–	–	.39***	–.02	.26**	.07	.13	–.29**	–.39***	–

Note. * p <.05; ** p <.01; *** p <.001. Cronbach's Alpha in brackets. N = 102.

The predictions regarding the effect on openness toward organizational change of interaction between perceived leader group prototypicality, need for cognitive closure, and team identification were tested by means of a moderated multiple regression analysis (using the product variable approach suggested by Baron & Kenny, 1986).

In this moderated multiple regression analysis the main effects of team identification, leader group prototypicality, and need for cognitive closure, and all possible two-way interactions and the three-way interaction were entered. Also the main effect of gender, age, job tenure, and education were entered, as control variables. Results of this analysis are reported in Table 2.

As can be see in the table, results show a positive relationship for team identification, with higher team identification associated with greater openness to organizational change, and a positive relationship for leader group prototypicality, with higher prototypicality associated with more openness to change. Moreover, there was a negative relationship for need for cognitive closure, with higher need for closure associated with less openness to change, confirming the results by Kruglanski et al. (in press). In line with predictions, there also was a positive and significant effect of the interaction between need for closure and leader group prototypicality, suggesting that high need for closure is associated with a stronger relationship between leader prototypicality and openness to change (see Pierro et al., 2005). The interaction of team identification and leader group prototypicality was also significant and positive. As predicted, the relation between leader group prototypicality and reaction toward organizational change was stronger for higher team identification (see Hogg, 2001). Of greatest importance, the three-way interaction was significant.

TABLE 2
Openness toward Organizational Change as a function of Team Identification, Leader Group Prototypicality and Need for Cognitive Closure : Results of Moderated Multiple Regression Analysis

Predictors	β
A) Team Identification	.38***
B) Leader Group Prototypicality	.22*
C) Need for Closure	–.28**
A X B	.34**
A X C	.02
B X C	.29**
A X B X C	.49**
Control variables	
Gender	–.14
Age	.18
Seniority	–.02
Education	–.06

Note. * p <.05; ** p <.01; *** p <.001. The increase in variance explained by the three-way interaction term (Team Identification x LGP x NfC) calculated after the other predictors were entered into the equation was: $\Delta R^2 = .06$; $p < .01$.

The positive sign of the three-way interaction suggest that, as predicted, the relation between leader group prototypicality and openness toward organizational change was stronger for followers with higher need for closure combined with higher team identification. These findings are illustrated via the predicted mean values shown in Figures 1a and 1b. Following the suggestion of Aiken and West (1991), the values were obtained considering one standard deviation above and below the means of the relevant variables in the regression equation.

The simple interaction analysis conducted to further understand the nature of the three-way interaction (Aiken & West, 1991) revealed that the relationship between need for closure and prototypicality, in predicting openness to change, was significant for the high identified participants (1 *SD* above the mean: β = .40, $p < .01$), whereas it was not significant for the participants low in identification (1 *SD* below the mean: β = .06, *n.s.*). Moreover, the simple slope analysis conducted to examine the two-way interaction (need for closure x leader group prototypicality) only for those participants relatively high in identification (1 *SD* above the mean) revealed that the relationship between prototypicality and openness to change was significant for participants relatively high in need for closure (1 *SD* above the mean: β = .72, $p = .001$), whereas this relationship was not significant for participants relatively low in need for closure (1 *SD* below the mean: β = .05, *n.s.*).

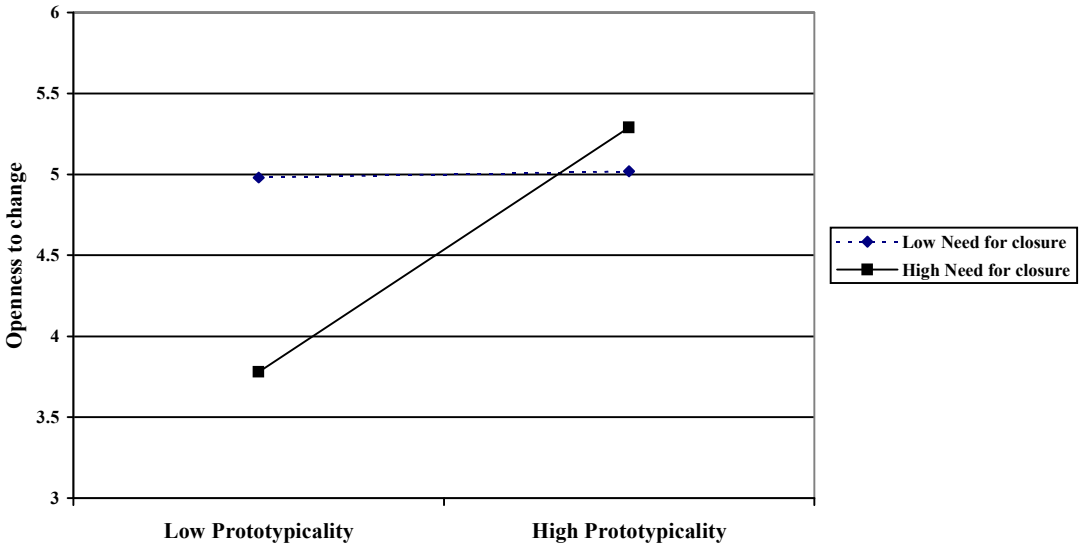

FIGURE 1A
Openness toward change in high identification condition as function of need for closure and leader group prototipicality.

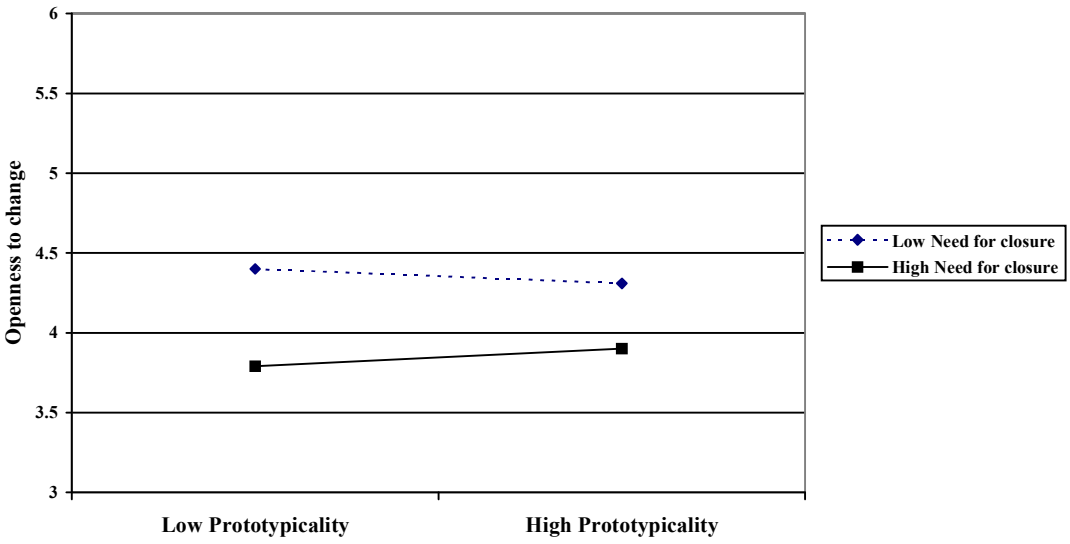

FIGURE 1B
Openness toward change in low identification condition as function of need for closure and leader group prototypicality.

DISCUSSION

In the present study we extended earlier social identity analyses of organizational change leadership by focusing on follower need for closure and team identification as moderators of the relationship between leader group prototypicality and resistance to organizational change. In doing so, we were also able to replicate and extend earlier findings for leadership effectiveness to leadership of change. The positive relationship between leader prototypicality and willingness to change (Bobbio et al., 2005; van Knippenberg & van Knippenberg, 2005), and the negative relationship between need for closure and willingness to change (Kruglanski et al., in press) replicate earlier findings for resistance to change; still the relationships, moderated by need for closure and identification, extend earlier findings concerning the change domain (Hogg, 2001; Hogg & van Knippenberg, 2003; Pierro et al., 2005). Most importantly, we were able to show that follower need for closure and team identification in interaction moderated the relationship between leader group prototypicality and openness to change.

From the perspective of understanding the social psychology of organizational change, the present study extends earlier work by more explicitly linking the role of leader group prototypicality to two key concerns in organizational change processes: uncertainty and continuity of identity. The present study thus more firmly grounds the social identity analysis of the leadership of change in some of the core processes identified as underlying resistance to change (cf. Rousseau, 1998; van Knippenberg & van Knippenberg, 2004). This may invite a more in-depth analysis of the role of leader prototypicality in engendering a sense of continuity (cf. Bobbio et al., 2005; van Knippenberg & Hogg, 2003), as well as in more situational factors (i.e., rather than individual differences) that may affect the desire to reduce uncertainty. As to the first, Bobbio et al. (2005) showed in a scenario experiment that followers relied more on leader prototypicality in determining responses to change when the change was perceived as a greater threat to the continuity of identity. We would expect that this would hold especially for people identifying more strongly with the organization and for whom the organizational identity is more valued. As to the second, a desire to reduce uncertainty may not only flow from individual dispositions but also from situational influences (e.g., Kruglanski & Webster, 1991). Accordingly, we may expect that changes that are surrounded by greater uncertainty invite a greater reliance on prototypical leaders. Issues like these would seem to provide worthwhile directions for future research.

The finding that follower need for closure and team identification interact in moderating the relationship between leader group prototypicality and resistance to change not only extends earlier analyses of leadership of change, it also deepens our understanding of earlier findings for the moderating roles of need for closure and identification. From the perspective of the moderating role of need for closure, the present findings suggest that the greater reliance on group membership and group prototypes to reduce uncertainty (Hogg, 2000) by people higher in need for closure is contingent on the extent to which they self-define as a member of the group. Only to the extent that self-definition is tied to the group, do people rely on group prototypical information to reduce uncertainty. From the perspective of the moderating role of identification, the present findings suggest that this mainly holds to the extent that people desire to reduce uncertainty. People with a greater tolerance for uncertainty, or in less uncertain circumstances (cf. van Knippenberg et al., 2000), are less likely to rely on group prototypes even when they identify with the group. In this sense then, the present findings also strengthen the fundaments of the social iden-

tity approach to leadership.

It should be noted that all data derive from a cross-sectional survey and may be subject to common method/source biases. However, while common method/source bias may inflate relationships between variables, it actually leads to an underestimation of the interaction effects (Evans, 1985; McClelland & Judd, 1993). Common method bias therefore cannot account for the interactions that are central to the current study. Moreover, the correlational nature of the data does not allow for causal inference, and one may raise question on the causal direction of the observed effects. Theoretically, we assumed that individual differences in need for closure and team identification may affect, in interaction with leader group prototipicality, employees' reactions to change. However, our data are consistent with the alternative interpretation that the degree of willingness to change affects employees' level of need for closure and/or their team identification. Also, team identification might be treated reasonably also as a criterion variable and it might be supposed, for instance, that a person who perceived a highly prototypical leader and with high need for closure and low willingness to change may identify extremely highly with the group. Future research, then, should provide further confirmation for our hypothesis and corroborate our results using, for instance, experimental design and manipulations of the independent variables, as well as longitudinal design conducted within different change situation. It would also be valuable if these studies would obtain more objective, behavioral data as indicators of leadership effectiveness in engendering willingness to change in addition to the more attitudinal variable that was central to the current study. Although the proof of the pudding of course is in the eating, in this respect we may note that there is experimental evidence involving behavioral data for many of the building blocks of the current analysis (see e.g., van Knippenberg et al., 2004), and we may therefore have some confidence that the present findings can also be substantiated using experimental methods. Clearly, then, the present results are not sufficient to reach definitive conclusion about the social identity approach to leadership of change. They do, however, form a fruitful extension of earlier work in this area, and lay the ground works for further development of the analysis of the role of social identity processes, and the management of these processes, in organizational change.

NOTE

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