

ACCEPTED MANUSCRIPT

EUROPEAN JOURNAL OF WORK AND ORGANIZATIONAL PSYCHOLOGY

Birds of a feather: Leader-follower similarity and procedural fairness effects on cooperation.

Ilse Cornelis and Alain Van Hiel

Ghent University

David De Cremer

Erasmus University, Rotterdam School of Management

Correspondence concerning this article should be sent to Ilse Cornelis, Department of Developmental, Personality and Social Psychology, H. Dunantlaan 2, B-9000 Gent, Belgium. Telephone: + 32 9 264 62 69. Fax: + 32 9 264 64 99. E-mail: [Ilse.Cornelis@UGent.be](mailto:Ilse.Cornelis@UGent.be).

The authors thank Birgit Schyns and three anonymous reviewers for their helpful suggestions and comments on a previous version of this paper.

## Abstract

The present paper examines to what extent leader-follower similarity moderates the effect of procedural justice on followers' cooperation. Using subjective operationalizations of similarity in a vignette study, a field study and an experimental lab study, we demonstrated that the enactment of fair procedures elicits the highest levels of cooperation when followers perceive the leader as similar. This was true when similarity was framed in broad, deep-level terms (Study 1 and 2) or in terms of a single, specific characteristic, i.e., the need to belong (Study 3). In the discussion we elaborate on possible explanatory mechanisms and on the broader context of an integrative approach to leadership research.

**Keywords:** Procedural fairness; Justice; Leadership; Need to belong; Similarity

## Birds of a feather: Leader-follower similarity and procedural fairness effects on cooperation

The enactment of procedural justice, or the fairness of procedures used when making decisions to allocate outcomes (Leventhal, 1980), represents one way in which leaders can enhance followers' cooperation (for a review, see De Cremer & Tyler, 2005) and thus indirectly influence group performance and success (De Cremer & van Knippenberg, 2002; Organ, 1988; Podsakoff, Mackenzie, Paine, & Bachrach, 2000). An extensive body of research has demonstrated that important follower characteristics, such as followers' needs, motives and dispositions, moderate the effects of procedural fairness (e.g., Colquitt, Scott, Judge, & Shaw, 2006; De Cremer & Blader, 2006; De Cremer & Sedikides, 2005; Van den Bos, Poortvliet, Maas, Miedema, Van den Ham, 2005; Van Hiel, De Cremer, & Stouten, 2008; Van Prooijen, 2009). While some headway has also been made in investigating how certain *leader* characteristics, such as leadership styles or behaviors, interact with fairness (e.g., De Cremer, 2006; De Cremer & den Ouden, 2009; Piccolo, Bardes, Mayer, & Judge, 2008), these studies still neglect the important idea that the effects of procedural fairness emerge in the context of a dynamic *interaction* between leaders and followers, who each bring into the relationship an individual amalgam of traits, needs, values and motives.

Our study therefore focused on the congruence between leader and follower characteristics and examined the moderating role of leader-follower *similarity* on the impact of fairness on cooperation. Previous research has focused on the main effects of similarity on organizational outcomes (for overviews see Edwards, Cable, Williamson, Lambert, & Shipp, 2006; Hoffman & Woehr, 2006; Kristof-Brown, Zimmerman, & Johnson, 2005), neglecting, to a degree, its moderating effect. Hence, the present paper touches on the effect of procedural fairness on cooperation in the context of the dynamic interplay between the characteristics of both leaders and followers—for example, in terms of important goals, purposes, and

personality characteristics (see De Cremer, Mayer, van Dijke, Schouten, & Bardes, 2009) — which has been proposed as an important and exciting new field in leadership research (Avolio, 2007; Howell & Shamir, 2005; Van Knippenberg, Van Knippenberg, De Cremer, & Hogg, 2005).

### *Procedural fairness*

Procedural fairness has a profound impact on how people feel and react within the context of social groups (for reviews, see De Cremer & Tyler, 2005). Over the years, theorists and researchers in the field of procedural fairness have proposed a number of models explaining why fairness has these important effects. Among these theories, an important class focuses on the relational aspect of procedural fairness. This relational perspective incorporates a central premise from social identity theory (Tajfel & Turner, 1979): that people use groups (and group authorities) as a source of information about the appropriateness of their attitudes and values (Tyler, 1989; Smith, Tyler, Huo, Ortiz, & Lind, 1998), and thus they provide emotional support and a sense of self-validation (Festinger, 1954) and belonging. According to the relational theories of procedural fairness<sup>1</sup>, fair procedures communicate to followers that they are respected and accepted and that they enjoy a positive reputation and standing within the group (for an overview, see De Cremer & Tyler, 2005). One of the most impressive effects of procedural fairness on group members is an increase in their willingness to cooperate (Tyler, 1999; Tyler & Blader, 2000, 2003). However, there also exists considerable variation in the degree to which followers are either likely or unlikely to cooperate under fair or unfair procedures (Colquitt, et al., 2006), and it is therefore important to look more closely into the facilitating or inhibiting factors involved with procedural fairness. Here, we examine the moderating effect of one of the factors we believe to be important: leader-follower similarity.

Indeed, despite the fact that relational models of fairness focus on followers'

relationships with and reactions to authorities (e.g. Tyler & Lind, 1992) and despite recent calls for an integration of insights from procedural fairness research into leadership literature (Tyler & De Cremer, 2005; van Knippenberg, De Cremer, & van Knippenberg, 2007), relatively few studies have investigated leader variables that facilitate or inhibit the effects of procedural fairness (see De Cremer, 2006; De Cremer & den Ouden, 2009; De Cremer & van Knippenberg, 2002). Even more importantly, while procedural fairness obviously takes place in the context of leader-follower relationships, the interplay between the characteristics of leaders and followers—which can be expected to influence these relationships and thus the effectiveness of fairness—has yet to be studied. An important factor influencing leader-follower relationships and determining these interactions is similarity, or the perceived congruence of the characteristics of leaders and followers (Green, Anderson, & Shivers, 1996; Liden, Wayne & Stilwell, 1993).

### *Similarity*

Similarity has been termed “...one of the most central theoretical constructs in psychology” (p. 254, Medin, Goldstone, & Gentner, 1993). As such, it represents a relatively broad concept that can be construed at different levels and may vary with contexts and experiences (Medin, et al. 1993). Here, we focus on subjectively perceived similarity, referring to individuals’ beliefs as to how similar they are to someone else; these perceptions are not necessarily symmetric nor logically constrained (Fisher, 2009). Particularly in the context of ongoing interactions and relationships, perceived similarity has been demonstrated to be more important than actual similarity (Montoya, Horton & Kirchner, 2008).

Furthermore, borrowing terminology from Harrison and colleagues (2002), we do not examine similarity at the “surface level” (that of overt demographic characteristics such as age, gender, etc.) but focus on “deep level” similarity, conceptualized as the congruence between individuals’ “...psychological characteristics, including personalities, values, and

attitudes.” (p. 1031, Harrison, Price, Gavin & Florey, 2002).

Similarity has been demonstrated to be important in interpersonal relationships, where people tend to be attracted to those they perceive as similar (e.g. Montoya et al., 2008). At the group level, similarity also fosters group cohesion (e.g. Callaway & Esser, 1984; Callaway, Marriott & Esser, 1985; Turner, Pratkanis, Probasco, & Leve, 1992), and similarity “at work”—the congruence between people and their work environment—is associated with various positive organizational outcomes (for overviews, see Edwards et al., 2006; Hoffman & Woehr, 2006; Kristof-Brown et al., 2005). While similarity has important consequences for a wide range of outcomes, its role in leadership effectiveness has received relatively limited attention. This is somewhat surprising because similarity has been proposed as an important prerequisite for the attribution of transformational leadership (Shamir, House, & Arthur, 1993). Indeed, Felfe and Schyns (in press) demonstrated that particularly similarity in terms of characteristics important in transformational leadership enhanced followers’ perceptions of leaders’ transformational leadership. Furthermore, leaders can only be influential to the extent that followers allow them to be. Recently, there has been an increased awareness that the acceptance and influence of a leader depends partly on followers’ beliefs about and perceptions of, for example, similarity to the leader (Felfe & Schyns, 2006). In addition, similarity is one of the possible factors influencing positive relationships (Brouer, Duke, Treadway, & Ferris, 2009) and is therefore likely to interact with leadership behavior, which also affects how people feel in the context of social groups.

#### *Similarity as a moderator of the effects of procedural fairness*

There are several theoretical arguments and empirical findings from research in organizational and social psychology that suggest that perceived leader-follower similarity may be an important moderating influence on reactions toward procedural fairness. We outline our argument here by placing similarity within a framework of social influence.

Leadership refers to processes of social influence (to quote Cialdini, 2001, leadership, at its most basic level, consists of "...getting things done through others", p. 72). Indeed, relational leadership theories (e.g., Graen & Uhl-Bien, 1995) and theories focusing on social identity (Hogg, 2001; van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2004) consider leadership to consist of a two-way influence between leader and follower (Uhl-Bien, 2006). In this context, procedural fairness reflects one way in which a leader can realize increased influence (Chemers, 2001; De Cremer & Alberts, 2004; Pillai, Schriesheim, & Williams, 1999). However, according to Tyler (2001), until now "...social justice research typically has not been thought of as being research about social influence" (p. 69).

The literature on procedural fairness has thus been very silent about its potential as a device of social influence, and particularly about the role of similarity therein. However, it is well-known that people conform more to influential agents whom they perceive as similar to themselves (Mackie, 1986); they are also more likely to comply with a request from someone with whom they share an incidental similarity, such as a birthday (Burger, Messian, Patel, del Prado, & Anderson, 2004). In the context of persuasive communication, similarity to the source of the communication has been linked to communicational success (Eagly, Wood, & Chaiken, 1978; Simons, Berkowitz, & Moyer, 1970) and people will recall more of a persuasive message if it comes from an in-group source (McGarty, Haslam, Hutchinson, & Turner, 1994). While earlier research has demonstrated that similarity can enhance the effects of social influence, it is not always entirely clear *why* this effect occurs. Several mechanisms or processes underlying the effects of similarity have been proposed (e.g. Edwards & Cable, 2009) and can be associated with two broad categories of informational and normative social influence processes. *Informational* influence refer to the extent to which information obtained from another will be accepted as evidence of reality (Deutsch & Gerard, 1955). In this sense, facilitated communication and increased trust in the information conveyed by a similar source

might stimulate followers to pay more profound attention to and process more extensively fairness-related information from a similar leader. This would imply they are more likely to accept as *valid* the implicit message of respect or disrespect that is communicated through the degree of fairness of procedures. As a result, followers will be motivated to reciprocate with an increased (or decreased) willingness to exert effort on behalf of the group and to promote the welfare of the group by cooperating (De Cremer & Tyler, 2005). *Normative* influence reflects processes embedded in self-evaluative or social-relational concerns (Chaiken, Giner-Sorolla, & Chen, 1996; Johnson & Eagly, 1989; Wood, 2000), for example, those related to interpersonal attraction (Byrne, 1971) and the desire to maintain positive relationships (Turban & Jones, 1988). Indeed, social identity theory and self-categorization theory (Tajfel & Turner, 1979; Turner, 1982) propose that people are attracted to and prefer relationships with similar others, and feelings of connectedness have been shown to enhance followers' reactions to leader behavior such as fairness (Byrne, 2001). Importantly, Piccolo and colleagues (2008) demonstrated that high-quality leader-member relationships enhanced the impact of fairness on indicators of organizational cooperation, with particularly strong effects of fairness within high-quality relationships.

In summary, from a social influence perspective we would expect procedural fairness to have more pronounced effects on cooperation when followers perceive leaders as similar rather than dissimilar. While the impact of interpersonal leader-follower similarity on reactions to procedural fairness has not yet been investigated, several studies have examined related issues, which we will now discuss. First, starting from a self-categorization perspective on social influence, Platow, Mills, and Morrison (2000) demonstrated that perceived leader-follower similarity interacted with distributive fairness (fairness related to the distribution and allocation of outcomes) in influencing the alignment of followers' attitudes with the leaders' attitude in an unrelated judgment task. Second, research has

demonstrated that procedural fairness in intergroup contexts has a stronger impact when enacted by in-group authorities rather than out-group leaders (Smith et al. 1998). These findings align with the social influence perspective wherein fairness has the most impact on people when enacted by others with whom one self-categorizes (Turner, 1991; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Noteworthy here is that unfairness is tolerated when the in-group is favored; in-group leaders who were *unfair* in favor of the in-group received equal or higher endorsement from group members than leaders who behaved fairly (Platow, Hoar, Reid, Harley, & Morrison, 1997). Third, people identifying strongly with the group are influenced more by procedural fairness than people who identify less strongly (Smith & Tyler, 1997). Finally, there are contradictory findings on the role of prototypicality, referring to an abstract representation of group level characteristics (see, Hogg & Van Knippenberg, 2003), in the context of fairness. On the one hand, group members have been shown to be more positively influenced (in terms of pride and respect) by interactional fairness when the authority was prototypical rather than non-prototypical (Lipponen, Koivisto, & Olkkonen, 2005), and for highly identifying followers, a distributively fair prototypical leader is somewhat more likely to be endorsed than a less prototypical fair leader (Platow & Van Knippenberg, 2001). On the other hand, evidence also exists that demonstrates that prototypical leaders have more leeway, resulting in less negative effects on leader endorsement following unfairness (Platow & Van Knippenberg, 2001; Ullrich, van Dick, & Christ, 2009).

While several of these studies touch on notions related to our central research question, they also refer to mechanisms rooted in contrasting in-groups from out-groups, or group-based identification, which is not necessarily linked to identification with a group leader. Furthermore, *group*-based prototypicality is strongly context-dependent (Haslam, 2001, Hogg, 2001), framed in intergroup settings and differs from *interpersonal* similarity

between leader and followers, which refers to a more personal attraction than the depersonalized attraction inherent in prototypicality (Hogg & Hains, 1996). Hence, while these findings suggest that interpersonal similarity may moderate the relationship between procedural fairness and cooperation, this remains to be demonstrated.

### *The present studies*

In this paper, the main objective is to test whether leader-follower similarity moderates the effects of procedural fairness on intentions to cooperate. We expect followers' tendencies to cooperate with a procedurally fair leader to be especially marked when they perceive the leader as similar rather than as dissimilar to themselves.

The present research is important for several reasons. First of all, despite an important emphasis on relationships with authorities (e.g. Tyler & Blader, 2000, 2003; Tyler & Lind, 1992), the literature on procedural fairness has yielded little insight into the dynamic interrelationship between leader and follower characteristics, which can be expected to have an important influence on followers' reactions to fairness (Graen & Uhl-Bien, 1995; Yukl, 2006). By focusing on the congruence between leaders and followers, we thus contribute a relatively new perspective to the literature on procedural fairness. Secondly, although similarity is obviously an important mechanism with far-reaching consequences in organizational settings (e.g. Kristof-Brown et al., 2005), its role in influencing leadership processes however is not yet fully understood. Given that the human mind is considerably invested in similarity (Medin et al, 1993), this study may yield important insights into how these important and ubiquitous processes can influence people's reactions to leader behaviors, especially those linked to the enactment of procedural fairness. Thirdly, this study contributes to an integration of various literatures on procedural fairness, leadership and social influence, which seem intrinsically linked but have developed independently over time, with little communication among them. The integration of leader-follower perspectives also fits well

within the recent trend in leadership literature to employ a more follower-centered approach in order to understand leader effectiveness (Howell & Shamir, 2005; Van Knippenberg et al., 2005). Finally, the present study focuses on followers' cooperation or intentions to cooperate as an outcome variable. The research literatures on fairness and cooperation have been relatively independent (see De Cremer & Tyler, 2005). For example, the studies we cited above investigating the interaction between leader prototypicality or group membership and fairness traditionally focused on outcome variables such as leader endorsement (Plattow & Van Knippenberg, 2001; Ullrich et al, 2009) or status and respect judgments (Van Dijke & De Cremer, 2008; Lipponen et al., 2005). However, because organizational success often relies to a substantial part on the degree to which its members act in ways that benefit the group, it is important to investigate under what conditions procedural fairness can motivate people to engage in cooperative behaviors.

We tested our hypothesis in a vignette study, a questionnaire study and an experimental design. In the vignette and experimental studies, the degree of fairness of procedures was manipulated by either allowing or disallowing followers voice in decision procedures (Folger, 1977; Thibaut & Walker, 1975); in the questionnaire study we measured procedural fairness in organizations (Colquitt, 2001). Perceived similarity (comparable to the notion of perceived fit in organizational literature, e.g., Kristof-Brown et al., 2005) was manipulated in the vignette study as congruency between participants and group leader/supervisor in terms of values, personality and attitudes (Kristof-Brown et al., 2005), while in the questionnaire study a measure of overall perceived similarity was administered. In the experimental study we specified these findings by manipulating similarity for a single trait relevant in the context of procedural fairness, i.e., the need to belong.

## Study 1

In the first vignette study, we tested whether leader-follower similarity moderates the effects of procedural fairness on intentions to cooperate. We manipulated perceived similarity and procedural fairness (operationalized as voice versus no voice), and we measured cooperative intentions. We expected a two-way interaction between voice and perceived leader-follower similarity, with stronger effects from a voice manipulation when leader-follower similarity was high.

### *Method*

#### *Participants and Design*

A total of 55 Belgian undergraduate students (34 women and 21 men, mean age = 18.9 years,  $SD = 1.31$ )<sup>2</sup> participated in return for partial course credit. They were randomly assigned to a 2 (similarity: high vs. low) x 2 (procedural fairness: voice vs. no voice) between-subjects design.

#### *Procedure and Materials*

The study was introduced as research on imagination and perspective taking. Participants read a short description of a situation in which they should imagine themselves in the following situation:

“You work at COMP-ANY, an organization providing software and support to a wide range of other organizations. You have been working together with your team leader for a few years now.”

Following this introduction, the similarity manipulation was introduced. In the high (or low, in parentheses) similarity condition, participants read:

“The team leader and you *share the same (have very different)* attitudes, values, and norms about a variety of topics and the two of you have very *similar (dissimilar)* personalities.”

After the similarity manipulation participants continued reading a description of the situation, which included the procedural fairness manipulation (voice in italics, with no voice in italics and in parentheses) at the end:

“The past year the whole team has worked really hard to try and perform as best as possible. This was apparent from the end results: all existing customers were very satisfied and the team has obtained many important new contracts. Higher management has therefore decided to award the team as a whole a considerable monetary bonus. The distribution of this bonus amongst the different team members has to be decided by your team leader. Your team leader decides *after consultation with the team members (on his own)* how the total bonus will be divided among the different team members. In other words, he *consults (does not consult)* the team members and *asks (does not ask)* for your opinion in this matter

Following this vignette, participants answered a series of questions in which the dependent and control measures were solicited.

#### *Measures*

All items were rated on a 7-point Likert scale ranging from 1 = completely disagree to 7 = completely agree, unless otherwise indicated.

*Manipulation checks.* Two items checked for the manipulation of voice. Participants indicated on a 7-point Likert scale, ranging from 1 (not at all) to 7 (very much), to what extent “... did the group leader ask you about your opinion” and “...did the group leader allow you voice” ( $\alpha = .95$ ).

Two additional items measured the degree to which participants perceived the leader as very similar or dissimilar to themselves. Participants rated the extent to which they thought

“...the team leader and yourself have similar values and norms” and “... the team leader and yourself have a similar personality ( $\alpha = .96$ ).

*Cooperation.* To measure cooperative intentions, we presented the participants with a set of 11 items<sup>3</sup> based on Tyler and Blader (2000). This scale includes items referring to extra-role behaviors (e.g., “I will help the team leader, even when not asked to do so”) and intentions to quit (e.g., “If there is a possibility to switch teams, I will leave the current team”) ( $\alpha = .87$ ).

## Results

### *Manipulation Checks*

A 2 x 2 ANOVA on the averaged two items checking the manipulation of voice revealed a significant effect of voice manipulation,  $F(1, 51) = 465.71, p < .001, \eta_p^2 = .90$ , and no other significant effects. Participants in the voice condition indicated receiving significantly more voice ( $M = 5.54, SD = .76$ ) than participants in the no-voice condition ( $M = 1.39, SD = .67$ ).

A 2 x 2 ANOVA on the items checking the manipulation of similarity indicated a significant effect of the similarity manipulation,  $F(1, 51) = 449.07, p < .001, \eta_p^2 = .09$ . There were no other significant effects. Participants perceived the group leader to be more similar to themselves in the high similarity condition ( $M = 5.72, SD = .72$ ) than did participants in the low similarity condition, ( $M = 1.72, SD = .65$ ).

### *Cooperation*

A 2 x 2 ANOVA on the scores for cooperation revealed a significant main effect of voice,  $F(1, 50) = 9.20, p < .01, \eta_p^2 = .16$ , a significant main effect of similarity,  $F(1, 50) = 13.86, p < .001, \eta_p^2 = .22$  and a significant interaction effect between voice and similarity,  $F(1, 50) = 6.13, p < .05, \eta_p^2 = .11$ . Additional tests, using the pooled error variance, corroborated our expectations. In particular, as can be seen in Figure 1, participants were significantly more

cooperative after receiving a voice rather than no voice from a similar leader,  $F(1, 50) = 16.40, p < .001, \eta_p^2 = .25$ . When the leader was perceived as dissimilar, participants did not indicate being more cooperative after being allowed voice rather than no voice,  $F(1, 50) = .14, ns, \eta_p^2 = .00$ .

### *Discussion*

In this first study, we demonstrated that procedural fairness interacts with leader-follower similarity to predict followers' intentions to cooperate, revealing more pronounced effects of being given voice by a leader similar to oneself. These results were obtained using vignettes, which have the advantage of allowing causal inferences and revealing findings high in internal validity. However, the possibility always exists that participants respond differently to hypothetical situations than that they would act in the real world. Hence, it was important to investigate our central research questions in a field study where people were actually involved in leader-follower interactions, which would increase the external validity of our results.

### *Study 2*

In this field study we investigated whether subordinates' self-reported cooperation in real-life organizational settings was influenced by the interaction between perceptions of procedural fairness and perceived similarity to their supervisor. We focused here on organizational cooperative behavior, operationalized as organizational citizenship behavior (OCB). OCB refers to activities that go beyond job requirements and that benefit others or the collective without necessarily benefiting the individual (Organ, 1988). We expected an interactive effect between procedural fairness and perceived leader-follower similarity on OCB.

### *Method*

#### *Participants*

A snowballing procedure was used, with research assistants collecting data by contacting potential respondents from their own and their parents' social network (i.e., friends, family members, neighbors). They were asked to select people who are part of the workforce. A total of 180 questionnaires were distributed, and 123 completed questionnaires were returned (response rate 68%). On average, respondents were 37 years old ( $M = 37.48$ ,  $SD = 10.96$ ) with an average of 10.85 years ( $SD = 10.25$ ) organizational tenure. The majority of respondents were female (62%). On average, people worked in organizations of 51 employees ( $SD = 98.00$ ). We succeeded in obtaining a relatively heterogeneous sample, with respondents working in different organizations and industries ranging from financial services to public service and health care. A majority of respondents indicated having a post-secondary degree (55%).

#### *Measures*

*Procedural fairness.* Colquitt's (2001) seven-item scale of procedural fairness as enacted by the respondents' supervisor (sample item: "To what extent have you been able to appeal the outcome arrived at by those procedures") was rated on a 7-point scale with answers ranging from 1 = to a small extent to 7 = to a large extent.

*Perceived similarity.* Respondents indicated perceived similarity to their supervisor on a 4 item scale (adapted from Ensher & Murphy, 1997), using a 5-point scale ranging from 1 = not at all to 5 = very much. A sample item is "My superior and I are very similar in a lot of ways."

*Cooperation.* Cooperation in an organizational context was assessed through 5 items from the Organizational Citizenship Behavior scale (Konovsky & Organ, 1996), measuring voluntary and altruistic helping behavior and a constructive involvement in the organization (sample item: "I stay informed about developments in the organization") on a 5-point scale with answers ranging from 1 = not at all to 5 = very much.

## *Results*

The means, standard deviations, reliabilities, and intercorrelations among the variables are presented in Table 1. All scales demonstrated sufficient reliability, and significant correlations among procedural fairness, perceived similarity and cooperation were obtained.

We conducted a hierarchical regression analysis for the dependent variable cooperation<sup>4</sup>. We first entered the (centered) predictor variables, procedural fairness and similarity, and in a second step we included the interaction term (cross-product between fairness and similarity). The results of this analysis indicated a significant main effect of procedural fairness,  $\beta = .38, p < .01$ , a significant main effect of similarity,  $\beta = .23, p < .01$ , and a significant interaction between perceived similarity and fairness,  $\beta = .21, p < .05$ . Fairness and similarity (step 1) explained 22% of the variance in cooperation and the interaction term added significantly to the variance explained in cooperation ( $\Delta R^2 = 4\%$ ,  $\Delta F(1) = 6.06, p < .05$ ). As can be seen in Figure 2, procedural fairness from a similar leader is associated with more cooperation than when the leader is seen as dissimilar. Simple slope tests (Aiken & West, 1991) indicated significant effects of procedural fairness on cooperation at high levels of perceived similarity with the supervisor (1SD above the mean),  $\beta = .53, p < .01$ , but fairness had only a near-significant effect on cooperation at low levels of perceived similarity (1SD below the mean),  $\beta = .18, p < .10$ .

## *Discussion*

In this second study we tried to generalize our Study 1 findings to a real-life setting with employees working in organizations and OCB as the dependent variable. As expected, employees were more likely to report cooperative behavior when they were treated fairly by a similar rather than dissimilar leader. Together with the findings of Study 1, these findings thus show that leader-follower similarity indeed acts as an important moderator of the relationship between procedural fairness and cooperation.

In the final study, rather than replicating these findings using a different sample and methodology, we went one step further by trying to specify to what extent we could find similar results when we considered similarity with respect to a single, specific characteristic. Indeed, in the first two studies we employed a very broad interpretation of similarity (similar in terms of values, attitudes and personality in Study 1 or in general, unspecified domains in Study 2), which allowed participants to fill this similarity construct with those aspects they themselves judged to be relevant or salient. However, in this final study we investigated to what extent comparable results would be obtained when we specified similarity a priori with respect to a particular trait that is relevant in the context of procedural fairness. The cross-validation of “general similarity” with “specific similarity” was also inspired by recent reports in which it has been argued that similarity (or, conversely, difference) is particularly important when it bears on crucial aspects of the group’s goals, outcomes and contexts (De Cremer et al., 2009; Felfe & Schyns, in press). We therefore examined in an experimental lab setting the impact of leader-follower similarity on a single specific characteristic: how highly they value belonging.

### Study 3

The desire to form and maintain positive and continuous relationships with others is a universal need, but individuals differ in the strength and intensity of this belongingness need (Baumeister & Leary, 1995). Procedural fairness conveys a symbolic message relevant to members’ inclusion and standing within the group, and thus has the ability to satisfy needs of belonging and to motivate people to cooperate (see, De Cremer & Blader, 2006). Because belongingness needs represent a salient and relevant characteristic in the context of fairness, perceived similarity with respect to this trait can be expected to influence people’s reactions to a leader enacting fairness (De Cremer & Tyler, 2005; Van Hiel et al., 2008). In the present study, in conjunction with our previous findings, we therefore expected followers to react

more strongly to the implicit message of inclusion in fairness when it is enacted by a leader who is perceived as similar in terms of needs for belonging.

In this study, procedural fairness was again operationalized as voice, and leader-follower similarity was manipulated as perceived similarity with respect to the need to belong (NTB) in a controlled laboratory setting. The main dependent variable in this study was participants' willingness to cooperate with the leader.

### *Method*

#### *Participants and Design*

Eighty-one Belgian undergraduate students (57 women, 12 males and 12 participants who did not indicate their gender; mean age = 18.91 years,  $SD = 1.06$ ) participated. They were randomly assigned to a 2 (leader similar vs. dissimilar with respect to NTB) x 2 (voice vs. no-voice) between-subjects design.

#### *Experimental Procedure and Materials*

Students participated in groups of six. Before the start of the experiment, students completed the Need to Belong questionnaire (Leary, Kelly, Cottrell, & Schreindorfer, 2001, taken from De Cremer & Alberts, 2004) which was then taken away by the experimenter, ostensibly to calculate everyone's score. The group task was to be completed by interacting through an instant messaging system (MSN messenger<sup>®</sup>) which allows several people ("contacts") to interact in instant one-to-one typed conversation. Participants could see the five other participants in their list of "contacts" who were assigned seemingly random names such as "team member 184" and "team member 139." There was also an "experimenter" contact who assigned tasks and informed team members on what to do. Although participants had the impression that they were able to interact with the other participants, in reality they only interacted with the experimenter, who also controlled the other "team members." Participants were informed that the experimenter had appointed one of the team members as

“group leader.” The experimenter also informed them that “based on the scores from the initial questionnaire, this leader had a similar level of NTB” as the participant (*Similar condition*) or either a markedly lower or higher level of NTB (*Dissimilar condition*)<sup>5</sup>. Participants were then invited to start the group task. This task was introduced as a study of students’ opinions on a proposal concerning the possible implementation of a web-based system for learning and testing, along with a shift towards an increased emphasis on more independent (and virtual) learning. Participants were informed that the university’s Information and Communication Technology Department (ICTD) was interested in finding out how this was perceived before possibly implementing this new system the following year. Because many of the participants would be directly influenced by such an implementation, they were likely to be highly involved in this topic and the decision that would be made. We claimed that because the ICTD did not have the time or resources to survey individual students or evaluate individual opinions, they had asked experimenters in the Psychology department (because they have regular contact with students) to provide reports from different groups of students. Participants had to read a text on the supposedly new system and the underlying policy of the ICTD and were asked to send their ideas and opinions about the implementation of this system to the group leader by instant message. The group leader had the task of selecting and choosing which opinions were to be put in the report which would be sent to the ICTD. When they had completed this task and had sent their opinion, they received a message from the group leader (again, in reality, the experimenter) that contained the voice manipulation (or no voice, between parenthesis):

“well, I have read (*did not read*) your comments and they will be included (*not be included*) in the text for the department, so I’m (*not*) giving you voice concerning this issue”.

Afterwards, participants were asked to complete another set of questions on paper, which constituted the dependent measures. Participants then continued to work on a subsequent unrelated experiment and were thanked for their participation. Debriefing took place after all sessions had been run, and most participants expressed surprise when the deception was revealed.

### *Measures*

*Manipulation checks.* Two items checked the manipulation of voice. “To what extent did the group leader take your opinion into account”, “To what extent did the group leader include your opinion in the group report” (on a scale from 1 = not at all to 7 = very much;  $\alpha = .96$ ). We assessed the effect of the similarity manipulation by asking participants to indicate the degree (from 1 = not at all to 7 = very much) that “The group leader and I are very similar in terms of our desire to belong to the group”.

*Cooperation.* We measured participants’ cooperative intentions through 3 Likert items probing their willingness to continue working with this same leader, to assist the leader with an extra task and to help the leader with an extra task (on a scale from 1 = completely disagree to 7 = completely agree;  $\alpha = .77$ ; based on De Cremer & van Knippenberg, 2004), as well one dichotomous question asking whether they would stay longer to help the group leader put the final touches on the report (45 people refused, 35 wanted to help). These measures were combined through a Principal Components Analysis, where we retained one component (eigenvalue = 2.64; 65% variance explained) which was used in subsequent analyses as the dependent variable.

## *Results*

### *Manipulation Checks*

A 2 x 2 ANOVA on the averaged two items checking the manipulation of voice revealed a significant effect of voice manipulation,  $F(1, 73) = 603.96, p < .001, \eta_p^2 = .89$ , and

no other significant effects. Participants in the voice condition indicated receiving significantly more voice ( $M = 5.65$ ,  $SD = 1.13$ ) than did participants in the no-voice condition ( $M = 1.09$ ,  $SD = .22$ ).

A 2 x 2 ANOVA on the item checking the manipulation of similarity indicated a significant effect of the similarity manipulation,  $F(1, 71) = 16.95$ ,  $p < .001$ ,  $\eta_p^2 = .19$ . There was also a significant but weaker effect of the voice manipulation,  $F(1, 71) = 8.95$ ,  $p < .01$ ,  $\eta_p^2 = .11$ , which was not entirely unexpected, because fairness and similarity represent two positively-valued aspects whose measures are likely correlated (see also Ulrich et al., 2009). Participants perceived the group leader to be more similar to themselves in the similar condition ( $M = 4.52$ ,  $SD = 1.89$ ) than did participants in the dissimilar condition, ( $M = 2.98$ ,  $SD = 1.37$ ).

### *Cooperation*

A 2 x 2 ANOVA on the component score for cooperation revealed a significant main effect of voice,  $F(1, 70) = 18.39$ ,  $p < .001$ ,  $\eta_p^2 = .21$ , no significant main effect of similarity,  $F(1, 70) = 3.21$ , *ns.*,  $\eta_p^2 = .04$  and a significant interaction effect between voice and similarity,  $F(1, 70) = 4.57$ ,  $p < .05$ ,  $\eta_p^2 = .06$ . Additional contrast analyses corroborated our expectations. In particular, as can be seen in Figure 3, it was revealed that participants were significantly more cooperative after receiving a voice rather than no voice from a similar leader,  $F(1, 70) = 18.05$ ,  $p < .001$ ,  $\eta_p^2 = .21$ . When the leader was dissimilar, participants did not indicate being significantly more cooperative after being allowed a voice rather than no voice,  $F(1, 70) = 2.56$ , *ns.*,  $\eta_p^2 = .04$ .

### Discussion

In this third study we examined, in an experimental lab setting, the moderating role of leader-follower similarity in terms of one specific characteristic—the need to belong—on the impact of procedural fairness variations on cooperation. In line with our expectations, leaders'

bestowal of voice elicited the highest levels of cooperation among followers who perceived the leader as similar with respect to belongingness. We also found that when followers perceived the leader as dissimilar in need to belong, they refrained from contributing substantially, irrespective of being treated fairly or unfairly.

### *General Discussion*

In a series of three studies, we examined to what extent perceived leader-follower similarity influenced followers' reactions to leaders' procedurally fair or unfair behavior. Our results indicated that leader-follower similarity moderated the impact of procedural fairness on cooperation. More particularly, we found that especially fair procedures from a similar leader motivated followers to be willing to engage in cooperation. These findings were obtained in Study 1, where similarity was manipulated as a match between leaders and followers in very broad terms (i.e., attitudes, values, norms, and personality), and in Study 2, where broadly-perceived similarity was measured. In Study 3, we were able to show that similarity with respect to the need to belong—a trait believed to be important to understand procedural fairness effects—moderated the relationship between fairness and cooperation.

Much research has already documented the far-reaching consequences of procedurally fair treatment on followers in terms of emotions, attitudes, and behavior (for reviews, see De Cremer & Tyler, 2005; Greenberg & Colquitt, 2005). However, research has rarely focused on interactions between leader and follower characteristics to explain the effects of procedural fairness. By showing that perceived leader-follower similarity has an impact on the effect of procedural fairness on cooperation, the present studies attest to the importance of taking into account both leaders and followers to understand the mechanisms through which procedural fairness operates. These findings constitute an interesting integration of ideas from the relatively separate research literatures of procedural fairness, similarity, leadership and social

influence, and contribute to a better understanding of how and when group and organizational leaders can stimulate cooperation through the enactment of fair procedures.

In the following, we elaborate on possible explanatory mechanisms for the similarity effects reported here. We also discuss an integrative approach to leadership and fairness as a social influence process.

### *Explaining the similarity effect*

Why are people more motivated by fairness enacted by a leader whom they see as similar to themselves? As we proposed earlier, research on social influence and interpersonal attraction has suggested both informational and normative processes that offer explanatory mechanisms to account for similarity effects as demonstrated in the present paper (see Deutsch & Gerard, 1955; Festinger, 1954).

The *informational* influence processes account holds that similarity bolsters influence because people accept information from similar others as a valid representation of reality (Deutsch & Gerard, 1955; Festinger, 1957). Informational processes have not only been shown in early group process literature, but their relevance has also been adopted in other domains. In organizational contexts, the effects of leader-follower value congruence on positive work-related outcomes have been ascribed to more efficient communication processes, which may be facilitated by, among others, common reference frames, shared standards, enhanced information exchange and reduced likelihood of misunderstanding (for an overview, see Edwards & Cable, 2009). Social cognition suggests that people are more likely to pay attention to models perceived as similar (Bandura, 1994). Moreover, similar leaders are seen as *credible* sources of information, which increases their persuasiveness (Simons et al., 1970). Leader similarity might thus result in the acceptance of the implicit message of inclusion and respect communicated through procedural fairness, precisely because these leaders are considered to be sources of valid information.

We also propose that similarity might influence followers' reactions to fairness because of relational concerns traditionally associated with normative social influence (Chaiken et al., 1996; Johnson & Eagly, 1989; Wood, 2000). Indeed, similarity increases attraction; even when people are not explicitly aware of the similarity, people gravitate to similar others, potentially due to processes of positive associations with the self (Pelham, Carvallo, & Jones, 2005). Hence, leaders who are perceived by followers as similar find themselves in relatively favorable high-quality relationships with followers; fair treatment in these relationships has the power to elicit cooperation. Conversely, dissimilar leaders' unfavorable relational positions cannot be compensated for by procedural fairness (see Piccolo et al, 2008). Research on Leader-Member Exchange theory (LMX, e.g. Boyd & Taylor, 1998; Graen & Scandura, 1987; Graen & Uhl-Bien, 1991) has further demonstrated that low-quality leader-follower relationships tend to be more "economical" and concerned with balancing inputs and outputs, which might suggest an increased sensitivity to distributive fairness when followers perceive leaders as dissimilar.

An additional issue that we want to highlight here is the potential mediating role of trust. Trust, or the "willingness to be vulnerable to the actions of another" (p. 657, Edwards & Cable, 2009), has been proposed as an important mechanism underlying similarity effects (see Edwards & Cable, 2009, for an overview). Perceptions of trust are proposed to result from a combination of cognitive and affective processes (Schoorman, Mayer, & Davis, 2007). Similarity could foster both the cognitive belief that someone with similar values, traits and norms is trustworthy, as well as induce positive feelings and emotions that are conducive to trust. Furthermore, trust creates an optimal condition in which the impact of fair procedures is meaningful and enhances followers' willingness to cooperate (De Cremer & Tyler, 2007). However, when followers' trust in the leader is low or absent, the leader's enactment of fairness may be distrusted and interpreted as, for example, an attempt at impression

management. Future studies might therefore investigate to what extent similarity can be considered as an antecedent for trust.

Finally, the relational model of procedural fairness describes the use of fair procedures by an authority in terms of intra-group dynamics. However, perceived similarity is also associated with shared group membership (Tajfel & Turner, 1979; Turner, 1982). Even though our studies were presented in an intra-group context, our manipulations of interpersonal leader-follower similarity may have made group membership and social categorization issues more salient, for example by activating a categorization of the leader as belonging to an in-group or out-group, or judging the leader as more or less prototypical. Followers' tendency to cooperate more when treated fairly by a similar leader could then also be explained by the idea that procedurally fair leaders enhance this salient social identity or social categorization by providing a positive validation of the group. Indeed, fair and similar leaders have been shown to be more persuasive in influencing group members' attitudes than unfair leaders or dissimilar leaders with whom group members do not self-categorize (e.g. Platow et al. 2000).

Although it seems reasonable to assume that a combination of several of the proposed mechanisms might underlie the reported effects of leader-follower similarity, these ideas require further empirical testing. An interesting avenue for future research, therefore, would be to investigate these potential mediating processes in more detail to explain the similarity effect on the impact of procedural fairness (and other leadership behaviors) on cooperation in groups.

#### *Leadership and procedural fairness as social influence: an integrative approach*

Leadership can be considered a shared process of influence, whereby certain group members influence the group's activities and the way in which group goals should be achieved, as well as how group members relate to each other (Yukl, 2006). Procedural

fairness, as an aspect of leadership, represents one way in which leader influence can be realized, although the fairness literature has traditionally not discussed this conceptualization of fairness. We demonstrated here that the effects of procedural fairness on cooperation are indeed moderated by perceived similarity, a factor that has been demonstrated to affect the success of social influence processes (Eagly et al., 1978; Simons et al, 1970).

This study thus fits within a recently propagated integrative approach to leadership (Avolio, 2007), where the dynamic interplay between leaders and followers is put at the forefront of the research agenda. Indeed, investigating how followers' beliefs and perceptions about the leader influence the impact of certain leader behaviors, such as fairness, emphasizes both the active role of followers in leadership processes and the importance of considering the context in which leaders operate, for example in terms of leader-follower fit.

Because leaders' abilities to motivate and influence others successfully is so important (Yukl, 2006), it is also worthwhile to consider the practical implications of the present findings. When you are a team leader or an organizational manager who is devoted to making decisions in a procedurally fair manner, it is useful to know that this will be especially motivating for those followers who resemble you in some way. However, a question arising here is how to manage others who feel dissimilar to you. A potential strategy could be to emphasize similarities between yourself and your followers, rather than focusing on differences (Chartrand & Bargh, 1999). Somewhat more controversially, increasing the subjective experience of being "alike" through subtle forms of imitation might also increase the effectiveness and motivational value followers attach to procedural fairness. Mimicking, for instance by imitating facial expressions, postures, mood or vocal patterns has been suggested to increase and strengthen bonds between people (Cialdini & Goldstein, 2004) and might make people more susceptible to processes of social influence (Chartrand & Van

Baaren, 2009). However, the use of these techniques can easily backfire when detected, and many people might regard them as unethical and manipulative.

### *Limitations and strengths*

A major strength of this study is that we demonstrate the moderating role of leader-follower similarity on the effects of procedural fairness using a vignette, a questionnaire and a laboratory experiment. Moreover, we measured and experimentally manipulated broad, deep-level perceived similarity (Study 1 and 2) as well perceived similarity for a single particular trait (Study 3). By using different methodologies, each with its own strengths and limitations, we thus support the generalizability and reliability of our findings.

A slight discrepancy exists between the measures of cooperation used in Study 1 and 3, which are more leader-focused, and Study 2, where we measured organizational citizenship behaviors in an organizational context. Interestingly, the interaction between fairness and similarity on participants' cooperative intentions towards the supervisor from Study 1 and 3 was generalized to cooperation directed toward coworkers and the team and organization as a whole. This is in line with assumptions from the target similarity multifoci model: while the strongest impact of an (un)fair supervisor can be in affecting behaviors towards this supervisor, this model also allows for weaker relationships or "spillover effects" to other levels or targets, such as the organization (Lavelle, Rupp & Brockner, 2007).

At this point we also want to add that in real-life group and organizational settings, perceived procedural fairness and perceptions of similarity to the leader are likely to be causally related: fair leaders are usually seen as more similar (Cornelis, Van Hiel & De Cremer, 2006) and the same behavior from similar leaders might be seen as somewhat fairer than that from a dissimilar leader (Hogg, 2001). While we circumvented this issue partly by manipulating similarity and fairness in two of our studies, longitudinal field data are needed to

allow a comprehensive understanding of the dynamics between these variables and their joint effects on cooperation.

### *Conclusion*

The present article is one of the first (at least to our knowledge) to address the effects of the interaction between leader and follower characteristics on the relationship between procedural fairness and cooperation. Procedural fairness has been proven to be an important element of leadership in groups. Thus, it is important to examine possible moderating variables that influence people's reactions to procedural fairness because this can have important consequences for leadership effectiveness.

## References

- Aiken, L. S., & West, S. G. (1991). *Multiple Regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Avolio, B. J. (2007). Promoting more integrative strategies for leadership theory-building. *American Psychologist*, *62*, 25-33.
- Bandura, A. (1984). Recycling misconceptions of perceived self-efficacy. *Cognitive Therapy and Research*, *8*, 231-255.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong - desire for interpersonal attachments as a fundamental human-motivation. *Psychological Bulletin*, *117*, 497-529.
- Boyd, N. G., & Taylor, R. R. (1998). A developmental approach to the examination of friendship in leader-follower relationships. *Leadership Quarterly*, *9*, 1-25.
- Brouer, R. L., Duke, A., Treadway, D. C., & Ferris, G. R. (2009). The moderating effect of political skill on the demographic dissimilarity - Leader-member exchange quality relationship. *Leadership Quarterly*, *20*, 61-69.
- Burger, J. M., Messian, N., Patel, S., del Prado, A., & Anderson, C. (2004). What a coincidence! The effects of incidental similarity on compliance. *Personality and Social Psychology Bulletin*, *30*, 35-43.
- Byrne, D. (1971). *The attraction paradigm*. New York: Academic Press.
- Byrne, Z. S. (2001) Effects of perceptions of organizational justice, identification, and support on outcomes within work teams Colorado State University , CO — Unpublished doctoral dissertation.
- Callaway, M. R., & Esser, J. K. (1984). Groupthink - effects of cohesiveness and problem-solving procedures on group decision-making. *Social Behavior and Personality*, *12*, 157-164.

- Callaway, M. R., Marriott, R. G., & Esser, J. K. (1985). Effects of dominance on group decision-making - toward a stress-reduction explanation of groupthink. *Journal of Personality and Social Psychology*, *49*, 949-952.
- Chaiken, S., Giner-Sorolla, R., & Chen, S. (1996). Beyond accuracy: Defense and impression motives in heuristic and systematic information processing. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking motivation and cognition to behavior* (pp. 553-578). New York: Guilford Press.
- Chartrand, T.L., & Bargh, J.A. (1999). The Chameleon effect: The perception-behavior link and social interaction. *Journal of Personality and Social Psychology*, *76*, 893–910.
- Chartrand, T.L., & van Baaren, R. (2009). Human mimicry. *Advances in Experimental Social Psychology*, *41*, 219-274.
- Chemers, M. M. (2001). Leadership effectiveness: An integrative review. In M. A. Hogg & R. S. Tindale (Eds.). *Blackwell handbook of social psychology: Group processes* (pp. 376–399), Oxford, UK: Blackwell.
- Cialdini, R. B. (2001). Harnessing the science of persuasion. *Harvard Business Review*, *79*, 72-+.
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, *55*, 591-621.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, *86*, 386-400.
- Colquitt, J. A., Scott, B. A., Judge, T. A., & Shaw, J. C. (2006). Justice and personality: Using integrative theories to derive moderators of justice effects. *Organizational Behavior and Human Decision Processes*, *100*, 110-127.

- Cornelis, I., Van Hiel, A., & De Cremer, D. (2006). Effects of procedural fairness and leader support on interpersonal relationships among group members. *Group Dynamics-Theory Research and Practice, 10*, 309-328.
- De Cremer, D. (2006). When authorities influence followers' affect: The interactive effect of procedural justice and transformational leadership. *European Journal of Work and Organizational Psychology, 15*, 322-351.
- De Cremer, D., & Alberts, H. (2004). When procedural fairness does not influence how good I feel: The effects of voice and leader selection as a function of belongingness needs. *European Journal of Social Psychology, 34*, 333-344.
- De Cremer, D., & Blader, S. (2006). Why do people care about procedural fairness? The importance of belongingness in responding and attending to procedures. *European Journal of Social Psychology, 36*, 211-228.
- De Cremer, D., & den Ouden, N. (2009). "When passion breeds justice": Procedural fairness effects as a function of authority's passion. *European Journal of Social Psychology, 39*, 384-400.
- De Cremer, D., Mayer, D. M., van Dijke, M., Schouten, B. C., & Bardes, M. (2009). When does self-sacrificial leadership motivate prosocial behavior? It depends on followers' prevention focus. *Journal of Applied Psychology, 94*, 887-899.
- De Cremer, D., & Sedikides, C. (2005). Self-uncertainty and responsiveness to procedural justice. *Journal of Experimental Social Psychology, 41*, 157-173.
- De Cremer, D., & Tyler, T. R. (2005). Managing group behavior: The interplay between procedural justice, sense of self, and cooperation. *Advances in Experimental Social Psychology, 37*, 151-218.
- De Cremer, D., & Tyler, T. R. (2007). The effects of trust in authority and procedural fairness on cooperation. *Journal of Applied Psychology, 92*, 639-649.

- De Cremer, D., & van Knippenberg, D. (2002). How do leaders promote cooperation? The effects of charisma and procedural fairness. *Journal of Applied Psychology, 87*, 858-866.
- De Cremer, D., & van Knippenberg, D. (2004). Leader self-sacrifice and leadership effectiveness: The moderating role of leader self-confidence. *Organizational Behavior and Human Decision Processes, 95*, 140-155.
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgement. *Journal of Abnormal Psychology, 51*, 629-36.
- Eagly, A. H., Wood, W., & Chaiken, S. (1978). Causal inferences about communicators and their effect on opinion change. *Journal of Personality and Social Psychology, 36*, 424-435.
- Edwards, J. R., & Cable, D. A. (2009). The value of value congruence. *Journal of Applied Psychology, 94*, 654-677.
- Edwards, J. R., Cable, D. M., Williamson, I. O., Lambert, L. S., & Shipp, A. J. (2006). The phenomenology of fit: Linking the person and environment to the subjective experience of person-environment fit. *Journal of Applied Psychology, 91*, 802-827.
- Ensher, E. A., & Murphy, S. E. (1997). Effects of race, gender, perceived similarity, and contact on mentor relationships. *Journal of Vocational Behavior, 50*, 460-481.
- Felfe, J., & Schyns, B. (2006). Personality and the perception of transformational leadership: The impact of extraversion, neuroticism, personal need for structure, and occupational self-efficacy. *Journal of Applied Social Psychology, 36*, 708-739.
- Felfe, J., & Schyns, B. (in press). Followers' personality and the perception of transformational leadership: Further evidence for the similarity hypothesis. *British Journal of Management*.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations, 7*, 117-140.

- Festinger, L. (1957). *A Theory of Cognitive Dissonance*. Evanston, IL, Row, Peterson.
- Fischer, I. (2009). Friend or foe: Subjective expected relative similarity as a determinant of cooperation. *Journal of Experimental Psychology*, *138*, 341-350.
- Folger, R. (1977). Distributive and procedural justice: Combined impact of “voice” and improvement of experienced inequity. *Journal of Personality and Social Psychology*, *35*, 108–119.
- Graen, G. B., & Uhl-Bien, M. (1991). The transformation of professionals into self-managing and partially self-designing contributors: toward a theory of leadership-making, *Journal of Management Systems*, *3*, 33-48.
- Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, *6*, 219–247.
- Graen, G. B., & Scandura, T. A. (1987). Toward a psychology of dyadic organizing. *Research in Organizational Behavior*, *9*, 175-208.
- Green, S. G., Anderson, S. E., & Shivers, S. L. (1996). Demographic and organizational influences on leader-member exchange and related work attitudes. *Organizational Behavior and Human Decision Processes*, *66*, 203-214.
- Greenberg, J., & Colquitt, J.A. (2005). *Handbook of organizational justice*. Mahwah, NJ: Erlbaum.
- Harrison, D. A., Price, K. H., Gavin, J. H., & Florey, A. T. (2002). Time, teams, and task performance: Changing effects of surface- and deep-level diversity on group functioning. *Academy of Management Journal*, *45*, 1029-1045.
- Haslam, S. A. (2001). *Psychology in Organizations: the social identity approach*. London: Sage.

- Hoffman, B. J., & Woehr, D. J. (2006). A quantitative review of the relationship between person-organization fit and behavioral outcomes. *Journal of Vocational Behavior, 68*, 389-399.
- Hogg, M. A. (2001). A social identity theory of leadership. *Personality and Social Psychology Review, 5*, 184-200.
- Hogg, M. A., & Hains, S. C. (1996). Intergroup relations and group solidarity: Effects of group identification and social beliefs on depersonalized attraction. *Journal of Personality and Social Psychology, 70*, 295-309.
- Hogg, M.A., & Van Knippenberg, D. (2003). Social identity and leadership processes in groups. *Advances in Experimental Social Psychology, 35*, 1-52.
- Howell, J. M., & Shamir, B. (2005). The role of followers in the charismatic leadership process: Relationships and their consequences. *Academy of Management Review, 30*, 96-112.
- Johnson, B. T., & Eagly, A. H. (1989). Effects of involvement on persuasion - a meta-analysis. *Psychological Bulletin, 106*, 290-314.
- Konovsky, M. A., & Organ, D. W. (1996). Dispositional and contextual determinants of organizational citizenship behavior. *Journal of Organizational Behavior, 17*, 253-266.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. (2005). Consequences of individuals' fit at work: A meta-analysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology, 58*, 281-342.
- Lavelle, J. J., Rupp, D. E., & Brockner, J. (2007). Taking a multifoci approach to the study of justice, social exchange, and citizenship behavior: The target similarity model. *Journal of Management, 33*, 841-866.

- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2005). *Individual differences in the need to belong: Mapping the nomological network*. Unpublished manuscript, Wake Forest University.
- Leventhal, G. S. (1980). What should be done with equity theory?: New approaches to the fairness in social relationships. In K. Gergen, M. Greenberg, & R. Willis (Eds.), *Social exchange theory* (pp. 27-55). New York: Plenum.
- Liden, R. C., Wayne, S. J., & Stilwell, D. (1993). A longitudinal-study on the early development of leader member exchanges. *Journal Of Applied Psychology, 78*, 662-674.
- Lipponen, J., Koivisto, S., & Olkkonen, M. E. (2005). Procedural justice and status judgments: The moderating role of leader ingroup prototypicality. *Leadership Quarterly, 16*, 517-528.
- Mackie, D. M. (1986). Social identification effects in group polarization. *Journal of Personality and Social Psychology, 50*, 720-728.
- McGarty, C., Haslam, S.A., Hutchinson, K. J., & Turner, J. C. (1994). The effects of salient group memberships on persuasion. *Small Group Research, 25*, 267-293.
- Medin, D. L., Goldstone, R. L., & Gentner, D. (1993). Respects for similarity. *Psychological Review, 100*, 254-278.
- Montoya, R. M., Horton, R. S., & Kirchner, J. (2008). Is actual similarity necessary for attraction? A meta-analysis of actual and perceived similarity. *Journal of Social and Personal Relationships, 25*, 889-922.
- Organ, D. W. (1988). *Organizational Citizenship Behavior - The Good Soldier Syndrome*. Lexington, Massachusetts/Toronto: D.C. Heath and Company.
- Pelham, B. W., Carvallo, A., & Jones, J. T. (2005). Implicit egotism. *Current Directions in Psychological Science, 14*, 106-110.

- Piccolo, R. F., Bardes, M., Mayer, D. M., & Judge, T. A. (2008). Does high quality leader-member exchange accentuate the effects of organizational justice? *European Journal of Work and Organizational Psychology, 17*, 273-298.
- Pillai, R., Schriesheim, C. A., & Williams, E. S. (1999). Fairness perceptions and trust as mediators for transformational and transactional leadership: A two-sample study. *Journal of Management, 25*, 897-933.
- Platow, M. J., Hoar, S., Reid, S., & Morrison, D. (1997). Endorsement of distributively fair and unfair leaders in interpersonal and intergroup situations. *European Journal of Social Psychology, 27*, 465-494.
- Platow, M. J., Mills, D., & Morrison, D. (2000). The effects of social context, source fairness, and perceived self-source similarity on social influence: a self-categorisation analysis. *European Journal of Social Psychology, 30*, 69-81.
- Platow, M. J., & van Knippenberg, D. (2001). A social identity analysis of leadership endorsement: The effects of leader ingroup prototypicality and distributive intergroup fairness. *Personality and Social Psychology Bulletin, 27*, 1508-1519.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management, 26*, 513-563.
- Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An integrative model of organizational trust: Past, present, and future. *Academy of Management Review, 32*, 344-354.
- Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership - A self-concept based theory. *Organization Science, 4*, 577-594.
- Simons, H. W., Berkowitz, N. N., & Moyer, R. J. (1970). Similarity, credibility, and attitude change - review and a theory. *Psychological Bulletin, 73*, 1-16.

- Smith, H. J., & Tyler, T. R. (1997). Choosing the right pond: The impact of group membership on self-esteem and group-oriented. *Journal of Experimental Social Psychology, 33*, 146-170.
- Smith, H. J., Tyler, T. R., Huo, Y.J., Ortiz, D. J., & Lind, E. A. (1998). The self-relevant implications of the group-value model: Group membership, self-worth, and treatment quality. *Journal of Experimental Social Psychology, 34*, 470-493.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations*. Monterey, CA: Brooks-Cole.
- Thibaut J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale : Erlbaum.
- Turban, D. B., & Jones, A. P. (1988). Supervisor subordinate similarity - types, effects, and mechanisms. *Journal of Applied Psychology, 73*, 228-234.
- Turner, J. C. (1982). Towards a cognitive redefinition of the social group, in H. Tajfel (ed.), *Social Identity and Intergroup Relations*, Cambridge, England: Cambridge University Press.
- Turner, J. C. (1991). *Social influence*. Pacific Grove, CA: Brooks/Cole.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.
- Turner, M. E., Pratkanis, A. R., Probasco, P., & Leve, C. (1992). Threat, cohesion, and group effectiveness - testing a social identity maintenance perspective on groupthink. *Journal of Personality and Social Psychology, 63*, 781-796.
- Tyler, T. R. (1999). Why people cooperate with organizations: An identity-based perspective. *Research in Organizational Behavior, 21*, 201-246.

- Tyler, T. R. (2001). Procedural strategies for gaining deference: Increasing social harmony or creating false consciousness? In J. M. Darley, D. M. Messick, & T. R. Tyler (Eds.), *Social influences on ethical behavior in organizations* (pp. 69-87). Mahwah, NJ: Lawrence Erlbaum.
- Tyler, T. R., & Blader, S. (2000). *Cooperation in groups: Procedural justice, social identity, and behavioral engagement*. Philadelphia: Taylor & Francis.
- Tyler, T. R., & Blader, S. (2003). Procedural justice, social identity, and cooperative behavior. *Personality and Social Psychology Review*, 7, 349-361.
- Tyler, T. R., & De Cremer, D. (2005). Process-based leadership: Fair procedures and reactions to organizational change. *Leadership Quarterly*, 16, 529-545.
- Tyler, T. R., & Lind, E. A. (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25, 115-191.
- Tyler, T. R., DeGoeij, P., & Smith, H. (1996). Understanding why the justice of group procedures matter: A test of the psychological dynamics of the group-value model. *Journal of Personality and Social Psychology*, 70, 913-930.
- Uhl-Bien, M. (2006). : Relational Leadership Theory: Exploring the social processes of leadership and organizing. *Leadership Quarterly*, 17, 654-676.
- Ullrich, J., van Dick, R., & Christ, O. (2009). Substitutes for procedural fairness: prototypical leaders are endorsed whether they are fair or not. *Journal of Applied Psychology*, 94, 235-244.
- van den Bos, K., Poortvliet, P. M., Maas, M., Miedema, J., & van den Ham, E. J. (2005). An enquiry concerning the principles of cultural norms and values: The impact of uncertainty and mortality salience on reactions to violations and bolstering of cultural worldviews. *Journal of Experimental Social Psychology*, 41, 91-113.

- van Dijke, M., & De Cremer, D. (2008). How leader prototypicality affects followers' status: The role of procedural fairness. *European Journal of Work and Organizational Psychology, 17*, 226-250.
- Van Hiel, A., De Cremer, D., & Stouten, J. (2008). The personality basis of justice: The Five-Factor Model as an integrative model of personality and procedural fairness effects on cooperation. *European Journal of Personality, 22*, 519-539.
- van Knippenberg, D., De Cremer, D., & van Knippenberg, B. (2007). Leadership and fairness: The state of the art. *European Journal of Work and Organizational Psychology, 16*, 113-140.
- van Knippenberg, B., van Knippenberg, D., De Cremer, D., & Hogg, M. A. (2004). Leadership, self, and identity: A review and research agenda. *Leadership Quarterly, 15*, 825-856.
- van Knippenberg, B., van Knippenberg, D., De Cremer, D., & Hogg, M. A. (2005). Research in leadership, self, and identity: A sample of the present and a glimpse of the future. *Leadership Quarterly, 16*, 495-499.
- van Prooijen, J. W. (2009). Procedural justice as autonomy regulation. *Journal of Personality and Social Psychology, 96*, 1166-1180.
- Wood, W. (2000). Attitude change: Persuasion and social influence, *Annual Review of Psychology, 51*, 539-570.
- Yukl, G. (2006). *Leadership in Organizations (6<sup>th</sup> edition)*. Upper Saddle River, NJ: Prentice-Hall.

## Footnotes

1. However, SIT and relational models differ in their core unit of interest: SIT focuses mainly on intergroup dynamics and regards people in terms of categorical group memberships, while relational justice models are concerned with intra-group phenomena, allowing for differentiation within those groups and focusing on people's relations with authorities (Tyler & Lind, 1992; Tyler, DeGoey, & Smith, 1996).

2. Preliminary analyses did not indicate any relationship between age or gender and the dependent variables in Study 1 and Study 3. We ran analyses controlling for these demographic variables but the findings did not differ substantially from the results of analyses without these variables included. For reasons of clarity and brevity, we report only the latter for Study 1 and Study 3.

3. Due to space constraints it is not possible to list all items, however they are available upon request from the first author.

4. Because this was a heterogeneous convenience sample, we initially controlled for respondent sex, educational level, organizational tenure and organization size (the latter two control variables were log transformed to correct for the skewedness of these data). However, there were no significant effects of these control variables, and the findings did not differ substantially from the results of analyses without these variables. For reasons of clarity, we only report results without the control variables included.

5. Because we included both leaders lower and higher in NTB, we also analyzed the data as a 3x2 design. These analyses indicated similar effects as the results reported here; however, due to lower statistical power the overall interaction was only significant at a level of .08.

Importantly, the voice manipulation showed a significant effect only in the similar condition,  $F(1,69)=19.54, p<.01$ , and not in the two dissimilar conditions,  $F$ 's (1,69) <1.76, *ns*.

Moreover, the effect of voice in the higher and lower dissimilar groups was not significantly

different,  $F(1,69)= 0.00$  , *ns*, whereas this effect was significantly different when we compared the similar group to the combined dissimilar groups,  $F(1,69)=6.93$ ,  $p<.05$ , or to each separate dissimilar group,  $F$ 's (1,69)  $>4.28$ ,  $p < .05$ . Hence, we further only report results with a similar vs. dissimilar condition.

Table 1

*Means, standard deviations and correlations among Study 2 variables.*

	M	SD	1	2	3
1. PF	3.27	.73	(.88)		
2. Similarity	2.68	.88	.28*	(.86)	
3. Cooperation	3.72	.66	.38**	.38**	(.75)

*Note:*  $N=123$ . Reliabilities on the diagonal in parentheses. \*  $p < .05$ ; \*\*  $p > .01$

Figure 1

Plot for the two way interaction between Procedural fairness, and Follower- Leader Similarity on Cooperation in Study 1.

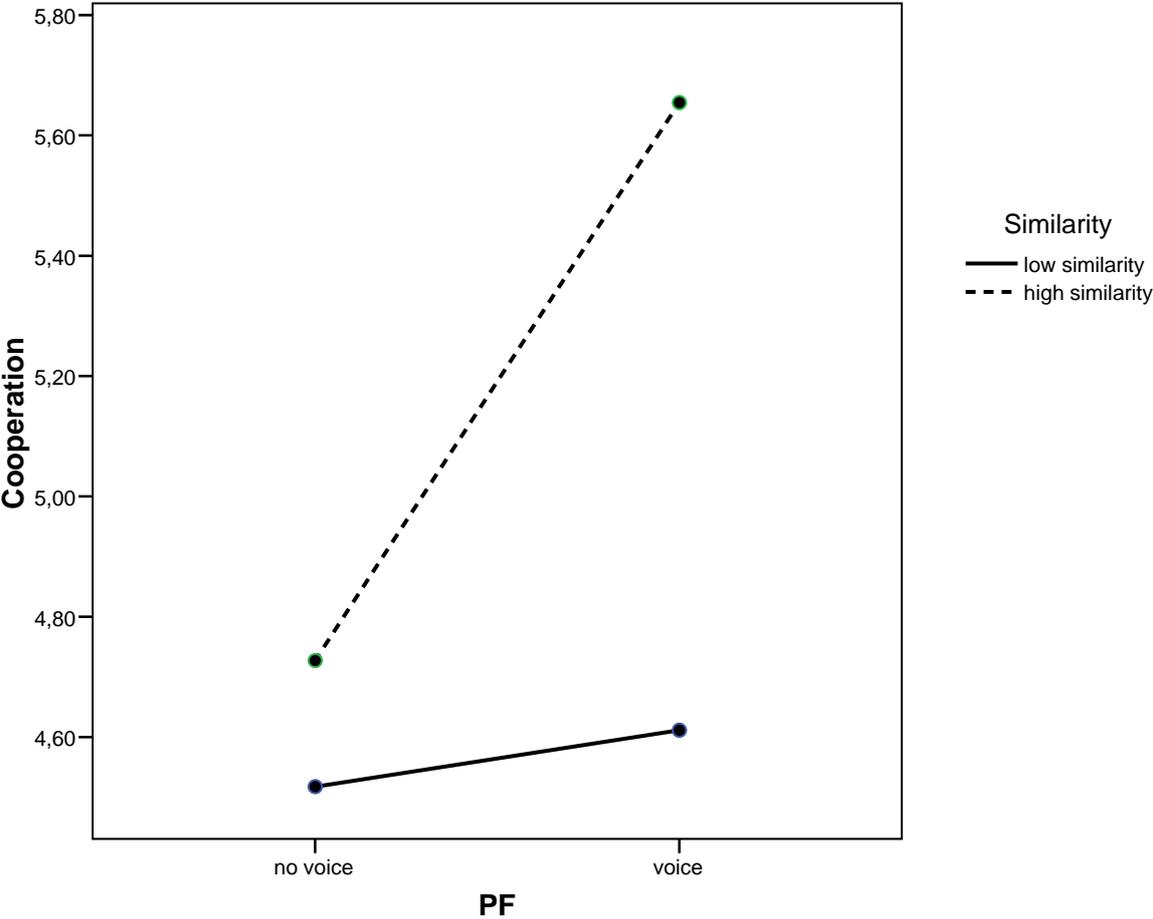


Figure 2

Plot for the two way interaction between Procedural fairness and perceived Similarity on Cooperation in Study 2.

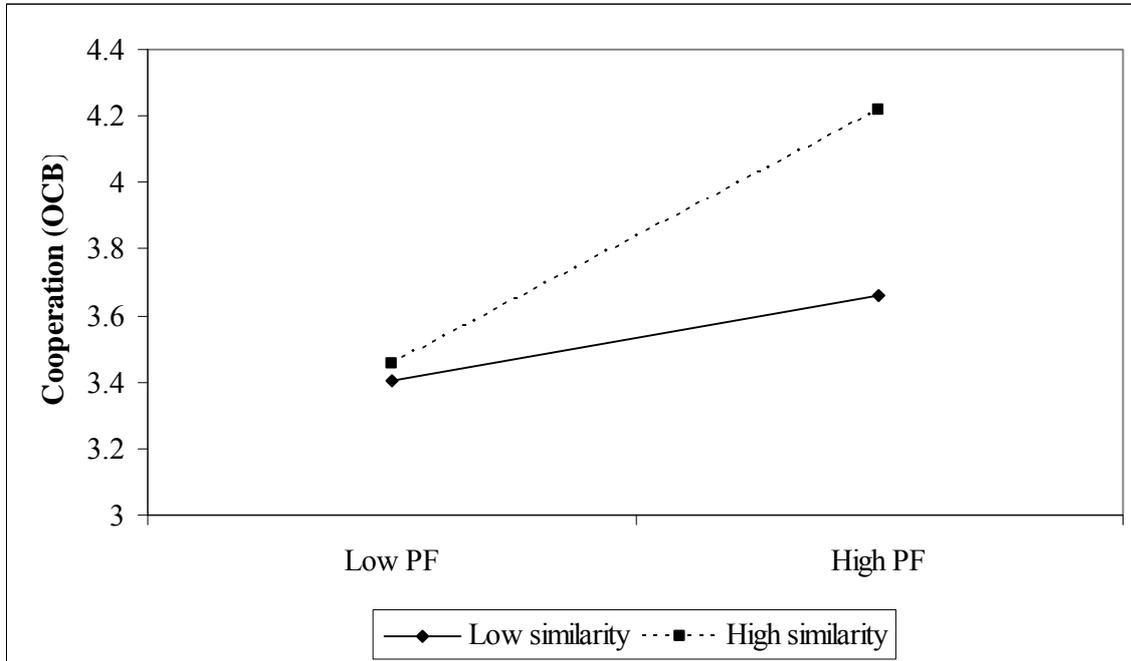


Figure 3

Plot for the two way interaction between Procedural fairness and NTB-Similarity on

Cooperation in Study 3

