Unity through Diversity: Value-in-Diversity Beliefs, Work Group Diversity, and Group Identification

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RUNNING HEAD: VALUE-IN-DIVERSITY BELIEFS

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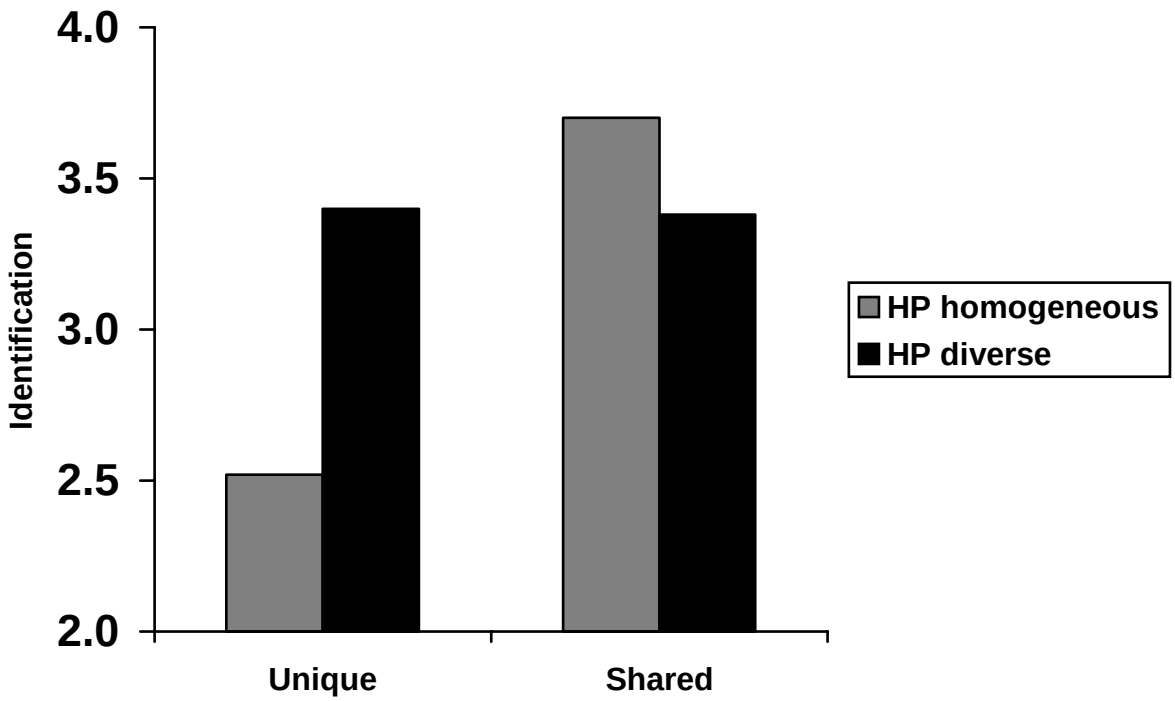
Abstract

Research on work group diversity has more or less neglected the possibility that reactions to diversity may be informed by individuals' beliefs about the value of diversity (vs.



homogeneity) for their work group. We studied the role of such diversity beliefs as a moderator of the relationship between work group diversity and individuals' identification with the work group across two studies. Study 1 was a cross-sectional survey that focused on gender diversity and gender diversity beliefs. Study 2 was a laboratory experiment in which work group diversity and diversity beliefs were manipulated. Results of both studies support the prediction that work group diversity and group identification are more positively related the more individuals believe in the value of diversity.

Keywords: diversity, identification, value-in-diversity, social identity, self-categorization

Unity through Diversity:

Value-in-Diversity Beliefs, Work Group Diversity, and Group Identification.

Work group diversity is a fact of organizational life. A substantive body of research on the individual level and group level effects of work group diversity suggests that diversity may be associated with a host of positive and negative outcomes (for reviews, see Jackson, Joshi, & Erhardt, 2003; Milliken & Martins, 1996; van Knippenberg & Schippers, in press; Williams & O'Reilly, 1998). Work group diversity is also an important concern for research in organizational behavior. Although evidence is mixed (Kozlowski & Bell, 2003; van Knippenberg, De Dreu, & Homan, 2004; Williams & O'Reilly, 1998), most theoretical analysis seem to converge on the conclusion that diversity may have positive effects on creative performance and decision making, whereas it has negative effects on the psychological relationship between the individual and the group (i.e., identification, commitment, cohesion) and affective/evaluative responses to the group and the job (Ancona & Caldwell, 1992; Cox, Lobel, & McCleod, 1991; Riordan & Shore, 1997; Triandis, Kurowski, & Gelfand, 1994; Tsui, Egan, & O'Reilly, 1992).

The actual evidence for the proposition that diversity is negatively related to group members' psychological relationship with the group is quite equivocal, however (van Knippenberg & Schippers, in press; Williams & O'Reilly, 1998), and in the present study we focus on what we propose is an important moderator of the relationship between work group diversity and group members' psychological relationship with the group: beliefs about the value of diversity to work group functioning. We tested the hypothesis that, contingent on the extent to which individuals value diversity, people may actually prefer diverse work groups over more homogeneous ones, and may identify more with diverse than with homogeneous work groups. If, as we argue, diverse groups may indeed under certain conditions invite more favorable relationships with their membership than more homogeneous groups, this would

provide an important new angle for diversity management to hook unto.

Work Group Diversity and Group Identification

Diversity refers to differences between individuals on any attribute that may lead to the perception that another person is different from self (e.g., Jackson, 1992; Triandis et al., 1994; Williams & O'Reilly, 1998). In principle, diversity may thus refer to an almost infinite number of dimensions. However, in practice diversity research has focused mainly on gender, age, race/ethnicity, tenure, educational background, and functional background (Jackson et al., 2003; Milliken & Martins, 1996; Williams & O'Reilly, 1998). Diversity effects may be studied at the individual level (i.e., individual responses to work group diversity) as well as at the group level (i.e., group process and performance as it is affected by diversity). Individual level effects concern such outcomes as the psychological relationship between the individual and the group as reflected in group identification and commitment (Riordan & Shore, 1997; Tsui et al., 1992), evaluative responses such as job satisfaction (e.g., Schippers, Den Hartog, Koopman, & Wienk, 2003), and more behavioral responses such as turnover or turnover intentions (e.g., Tsui et al., 1992; Wagner, Pfeffer, & O'Reilly, 1984). Group level effects concern such things as group members' relationship with the group as reflected in group cohesion (e.g., O'Reilly, Caldwell, & Barnett, 1989), group process (e.g., conflict; Jehn, Northcraft, & Neale, 1999; Pelled, Eisenhardt, & Xin, 1999), and group performance (e.g., Bantel & Jackson, 1989; Cox et al., 1991; Jehn et al., 1999).

Whereas theoretical perspectives in diversity research disagree about the effects of diversity on performance (cf. van Knippenberg et al., 2004; Williams & O'Reilly, 1998), they tend to converge on the hypothesis that, if it has any effects, diversity has a negative impact on the psychological relationship between the individual and the group and on associated affective/evaluative responses (Triandis et al., 1994; Williams and O'Reilly, 1998). This hypothesis follows from social categorization and similarity/attraction analyses of work

group diversity that are taken to imply that people prefer to work with similar others.

The variable that is probably most heavily implicated in this analysis is group members' identification with the work group. Following social identity theory and self-categorization theory (Hogg, 2003; Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), social identification may be defined as the perception of oneness between self and group, where the self is defined in terms of the group membership and group-defining characteristics (Ashforth & Mael, 1989; van Knippenberg, 2000). Identification as a reflection of the psychological relationship between the individual and the group (or organization) has been shown to be related to a range of organizational attitudes and behaviors, such as turnover (Mael & Ashforth, 1995), support for the organization (Mael & Ashforth, 1992), work motivation and performance (Haslam, Powell, & Turner, 2000; van Knippenberg, 2000), leadership effectiveness (van Knippenberg & Hogg, 2003; Platow, Haslam, Foddy, & Grace, 2003), intergroup relations (Kramer, 1991; van Knippenberg, 2003), and the effects of mergers and acquisitions (van Dick, Wagner, & Lemmer, 2004; van Leeuwen, van Knippenberg, & Ellemers, 2003; for overviews, see Haslam, 2001; Haslam, van Knippenberg, Platow, & Ellemers; 2003; Hogg & Terry, 2000, 2001).

Work group diversity is argued to be related to work group identification and related concepts such as commitment and cohesion (cf. Hogg, 1993; Riordan & Shore, 1997) because identification partly derives from perceived similarity between self and group (Haslam, 2001; Turner et al., 1987). Accordingly, perceived similarity between self and group may be seen as a precondition for identification to occur (although perceived similarity is also seen as an important outcome of social self-categorization; Turner, 1985). It seems, however, that diversity research has taken this argument as implying that, because similarity is a basis for social identification, therefore more similarity between self and group (and thus by implication greater group homogeneity) leads to more identification, commitment, and

cohesion (e.g., O'Reilly et al., 1989; Riordan & Shore, 1997; Swann, Polzer, Seyle, & Ko, 2004; Tsui et al., 1992; Williams & O'Reilly, 1998). We call this conclusion into question, and propose that sometimes diversity rather than homogeneity may foster greater group identification. More specifically, we propose that people may see value in diversity, and as a consequence respond favorably to diverse work groups precisely because of their diversity.

Perceived similarity between self and group may set the stage for self-categorization as a group member, and in that sense gives homogeneous groups an advantage when it comes to fostering positive relationships with their membership (Chattopadhyay, Tluchowska, & George, 2004), but it is only one of the factors governing group identification. Indeed, another factor that has quite widely been studied as a determinant of identification is the subjective value of the group, and this may be positively related to work group diversity. Through the psychological merging of self and group, the subjective value of the group reflects on the self (Hogg & Abrams, 1988; Tajfel & Turner, 1986), and people are therefore more likely to identify with groups seen as prestigious, high status, high performing, or that have an otherwise attractive image (Ashforth & Mael, 1989; Dutton, Dukerich, & Harquail, 1994; Haslam et al., 2000; Tajfel & Turner, 1986). Importantly, the subjective value of the group is not necessarily higher for more homogeneous groups, and may be higher for more diverse groups. If we acknowledge the possibility that work group members may see value in diversity, we can see how work group diversity could enhance the subjective value or attractiveness of the work group (i.e., for those believing in the value of diversity) and thus build rather than disrupt identification with the work group. The aim of the present research is to investigate this issue, and to develop the notion of *diversity beliefs*, beliefs about the value of diversity to work group functioning, as a moderator of responses to diversity.

The Present Study: Diversity Beliefs and Group Identification

Diversity research has recognized that people may hold a priori biases against, and

stereotypes about, dissimilar others that may inform responses to dissimilar others (cf. Williams & O'Reilly, 1998). It has, however, paid far less attention to potential influence of the beliefs that individuals may hold about diversity itself. Based on stereotypes, expectations, and prior experience, people may hold beliefs about how group composition in terms of homogeneity or diversity affects work group functioning. Especially for task groups, group composition may affect the extent to which the group is believed to be a "good" group – where "good" is subjectively defined, and may refer to task performance as well as to other aspects of group functioning. When people believe that diversity has benefits for group functioning and performance, for instance because they believe that diversity stimulates creativity or that diversity makes the group a more interesting and stimulating group to work, they may value diverse groups as much as, or even more than, homogeneous ones. We propose that such value-in-diversity beliefs may inform responses to actual work group composition, and lead people to respond more favorably to work group diversity the more they believe in the value of diversity for work group functioning.

We are not the only ones to note that people may differ in their beliefs about, or attitudes towards, diversity (Hostager & De Meuse, 2002; Paulus, Nakui, Parthasarathy, & Baruah, 2004; Sheehan & Martin, 2004; Strauss, Connerley, & Ammermann, 2003). In a similar vein, others have noted that organizational climates and cultures may differ in the extent to which they value diversity (Cox, 1993; Ely & Thomas, 2001; Jackson et al., 1992; Kossek & Zonia, 1993; Mor Barak, Cherin, & Berkman, 1998). These studies underscore the fact that diversity need indeed not be aversive to people, and may be embraced as something that increases the value of a group or organization. The implication of this line of reasoning is that diversity (as compared with homogeneity) need not be associated with lower identification, commitment, or satisfaction, but might in fact even be associated with higher identification, commitment, or satisfaction when people believe that there is greater value in

diversity than in homogeneity. Importantly, however, whereas earlier studies have advanced the theoretical notion that beliefs or climates/cultures valuing diversity are needed to harvest the benefits of diversity, or have focused on the measurement of, and the determinants of diversity beliefs and climates, a quantitative test of the influence of diversity beliefs on responses to diversity that reflect group members' psychological relationship with the group or satisfaction with the situation (i.e., arguably the issue that is most at stake in diverse groups; Triandis et al., 1994; Williams & O'Reilly, 1998) has until now not been provided. The present study provides such a test.

To study the moderating effect of diversity beliefs on the relationship between group diversity and individual's psychological relationship with their work group, we focused on diversity's relationship with work group identification. As argued in the previous, work group identification probably is that aspect of the psychological relationship between self and group that is believed to suffer the most from work group diversity because of its link to similarity-based self-categorization (cf. Ashforth & Mael, 1989). We argue against this common assumption. On the basis of the propositions that people may differ in the extent to which they see value in diversity and that the subjective value of a group is an important determinant of group identification, we predicted that diversity beliefs moderate the relationship between work group diversity and work group identification. The more beliefs favor diversity, the more work group diversity is positively related to identification. Conversely, the more beliefs favor homogeneity, the more work group diversity is negatively related to identification.

To test our hypothesis about the moderating role of diversity beliefs in the relationship between work group diversity and work group identification, we conducted a survey of responses to work group diversity in organizations (Study 1) and followed this up with a laboratory experiment in which we manipulated work group diversity and diversity beliefs

(Study 2). The field study allowed us to determine whether the proposed relationship is observed for work group identification in organizations. Because of its correlational nature, however, it does not allow us to draw conclusions about causality. The experimental study was designed to complement the survey in this respect by providing such a test of causality. The correlational study, in turn, complemented the experimental study by providing a test of our hypothesis in a setting with more mundane realism. This combination of methods allowed us to benefit from the strengths of each method, and to compensate for the weaknesses of each method with the strengths of the other method (Dipboye, 1990).

Identification reflects self-conception, and thus is an individual-level construct. Accordingly, in line with studies of the relationship between individuals' similarity to their work group and affective-evaluative responses to the group (Chattophadyay et al., 2004; Tsui et al., 1992), we tested our hypothesis at the individual level of analysis. In anticipation of the need for a clean and focused manipulation of diversity beliefs in the experimental study, our operationalizations of diversity beliefs zoomed in on beliefs about a specific aspect of group functioning – the implications of work group diversity for group performance – which arguably is a key concern in all work groups.

Study 1

Study 1 was part of a cross-sectional survey of employees in a variety of organizations enrolled in a business course. To test our hypothesis, we focused on work group gender diversity. Gender diversity is one of the more widely studied dimensions of diversity (Williams & O'Reilly, 1998) and one of the variables that is typically implicated in theoretical analyses from a social identity perspective to be detrimental to individuals' psychological attachment to their work group (e.g., Riordan & Shore, 1997). The choice to focus on gender diversity was also informed by the fact that we had to rely on self-reports of work group composition. Gender, being a readily detectable dichotomy, is probably the

dimension about which people may report on group composition with the greatest reliability. Accordingly, the survey focused on gender diversity beliefs as a moderator of the relationship between gender diversity and work group identification.

Method

Sample

Respondents were 220 employed business students participating in a course on organizational behavior, who participated voluntarily in the survey as part of a classroom demonstration. Participants' responses related to their work group at their job (the survey defined work groups as the group with which they worked collaboratively in day-to-day interaction). As a consequence of the nature of the sample, respondents were from a wide range of organizations. At the beginning of the course, a questionnaire assessing the study variables was administered. Sixty-seven percent of the respondents were male, mean age was 21.51 (SD = 2.16).

Measures

Respondents provided information about the size of their work group and the number of men and women in it (a check revealed that the combined number of men and women matched reported group sizes). Gender diversity was operationalized as the within-group variance in gender, where gender was coded 1 for male and 0 for female.

Diversity beliefs for gender diversity were assessed with two items (responses on 5-point *totally disagree – totally agree* scales). Items were "A group like this performs better if it consists of a roughly equal number of men and women", and "A group like this performs better if it consists of either only men or only women" (reverse scored). The intercorrelation between these items in the present study was r = .42, p < .0001. The composite score was computed such that higher scores reflected beliefs more in favor of diversity.

Identification was measured with six items inspired by Mael and Ashforth (1992) and van Leeuwen et al. (2003). Items include "When I talk about this group, I usually say 'we'

rather than 'they'", and "I feel a strong tie with this group" (responses on 5-point *totally disagree – totally agree* scales). Reliability of this scale was good, $\alpha = .90$.

Results

Descriptive statistics and intercorrelations for the study measures are displayed in Table 1. As can be seen from this table, intercorrelations were small to moderate. Hypotheses were tested using hierarchical regression analysis. On Step 1, gender diversity and gender diversity beliefs were entered, as well as gender and group size as control variables. On Step 2, the gender diversity x gender diversity beliefs interaction was entered. Following Aiken and West (1991), the components of the interaction were centered before computing the interaction term. Results of this analysis are displayed in Table 2.

The predicted gender diversity x gender diversity beliefs interaction was significant, and simple slopes analysis (Aiken & West, 1991) were conducted to analyze this interaction further. These revealed that when diversity beliefs were relatively pro-diversity (one SD above the mean), gender diversity was positively related to work group identification, $\beta = .22$, $p < .05$. In contrast, when beliefs were relatively pro-homogeneity (one SD below the mean), higher gender diversity tended to be associated with lower identification, although this relationship was not significant, $\beta = -.12$, $p < .15$ (see Figure 1). The nonsignificance of the latter slope may reflect the fact that beliefs in general were relatively pro-diversity (i.e., on average above the scale midpoint).

In addition, work group size was negatively related to identification. This finding is consistent with the proposition that people have a preference for relatively small (work) groups (Brewer, 2003; cf. van Knippenberg & van Schie, 2000).

Discussion

Study 1 yielded support for the hypothesis that diversity beliefs moderate the relationship between work group diversity and work group identification. The relationship

between diversity and identification was more positive the more people believed in the value of gender diversity. This finding is important because it is – to our knowledge – the first evidence that beliefs about diversity can moderate the relationship between diversity and outcome variables. The finding is all the more noteworthy because it concerns identification, the variable that is arguably most strongly implicated in analyses that suggest that diversity would have negative effects on the psychological attachment of individuals to their group.

It should be noted, however, that Study 1 employed a rather brief and simple measure of diversity beliefs. For more general attitudes towards diversity (i.e., not tied to specific dimensions of diversity), there are some more developed measures (e.g., Paulus et al., 2004; Hostager & De Meuse, 2002; Strauss et al., 2003). It may be the case, then, that these measures could be used as to develop more elaborate measures of beliefs about specific dimensions of diversity in future field research. It should also be noted that all data derived from a single questionnaire, where common source/method biases may inflate relationships (although this is unlikely for a factual measure like work group composition). An important point in this respect, however, is that common method bias cannot account for statistical interactions. Indeed, if anything, they make them harder to detect (Evans, 1985; McClelland & Judd, 1993).

Interestingly, there was a moderate positive correlation between gender diversity and gender diversity beliefs. Possibly, direct experience with working in a mixed gender group contributed to more pro-diversity beliefs (cf. Brewer & Pierce, 2005; Gaertner & Dovidio, 2000). Because Study 1 is correlational in nature, however, causality in this relationship cannot be determined.

While the relationship between diversity and diversity beliefs is not central to the present analysis, the fact that Study 1 is mute on matters of causality is a more important limitation where it concerns the interaction effect between diversity and diversity beliefs on

identification. Study 1 cannot establish causality in this relationship, and Study 2 was designed to to address this issue experimentally.

Study 2

Study 2 was a computer-mediated experiment. It was designed to establish causality in the interactive effect of diversity and diversity beliefs on identification, and to rule out the influence of prior experience related to the dimension of diversity and of prior experience with fellow group members. To do so, participants were led to believe that they would engage in a computer-mediated idea generation task (cf. computer-mediated brainstorming) in a group of four people that they would not actually meet. In reality, participants worked individually, allowing us to give bogus feedback about group composition. Moreover, it allowed us to manipulate diversity and diversity beliefs concerning a bogus dimension of diversity, thus ruling out influences of prior experience with the group or with the dimension of diversity.

This set-up may be somewhat artificial in nature, and the lack of interaction between group members is not representative of work groups in organizations. The important thing to note in this respect, however, is that studies using similar set-ups have consistently yielded findings for identification that are replicated in surveys in organizations (van Knippenberg & Hogg, 2003; van Knippenberg & van Leeuwen, 2001; for more elaborate discussions of the use of these kind of set-ups to study responses to group membership, see Brewer, 1979; Hewstone, Rubin, & Willis, 2002; Tajfel, 1982). Moreover, we of course complemented Study 2 with the survey results of Study 1.

Method

To create full experimental control for the manipulation of diversity beliefs, we focused on an experimentally induced dimension of diversity about which people could not hold prior beliefs: “Type H” versus “Type P” cognitive style. Diversity beliefs about HP diversity (i.e.,

diversity in cognitive style) were manipulated by varying task requirements and implying a relationship between HP diversity and task requirements. In the *unique ideas* condition, participants were told that their job as a group was to come up with as many ideas for solutions to a problem as possible. They were told that contributions of group members would be checked for overlap and each idea would only count once. In the *shared ideas* condition, they were assigned the task of producing as many ideas for solutions to the problem as possible. They were told here that contributions of group members would be checked for overlap and each idea would only count if it was mentioned by at least three out of four group members. We also led participants to believe that people with a Type H cognitive style were prone to come up with different ideas than people with a Type P cognitive style. Therefore, task requirements were expected to elicit diversity beliefs that either favored diversity (unique ideas condition, where overlap in ideas is detrimental to group productivity) or homogeneity (shared ideas condition, where overlap in ideas is required for group productivity) on the HP dimension.

In addition to the manipulation of diversity beliefs, we gave participants bogus feedback about the composition of their group in terms of the HP cognitive styles dimension. This information suggested that the group was either homogeneous or diverse. HP diversity and task requirements were expected to interact in affecting identification, because task requirements were expected to affect HP diversity beliefs. For Study 2, then, our hypothesis translated to the prediction that task requirements moderate the relationship between work group diversity and work group identification. To establish that this effect indeed is due to the effect of task requirements on diversity beliefs, we also conducted a mediational analysis.

Participants and Design

One hundred and twenty-six students from a Dutch University (56 % female, mean age $M = 21.98$, $SD = 4.30$) participated in the study in return for payment. Participants were

randomly assigned to the conditions of a 2 (HP diversity) x 2 (Task requirements) between-participants factorial design.

Procedure

On arrival in the laboratory, participants were assigned to an individual cubicle containing a personal computer that was used to administer all experimental materials. The experiment was introduced as a study on computer-mediated task performance in groups. It was explained that for these purposes the experimenter would assess participants "cognitive style". Cognitive style allegedly referred to individual differences in the way people approach problems and generate potential solutions to these problems.

Participants were asked to complete a test that allegedly measured these cognitive styles (adapted from van Leeuwen, van Knippenberg, & Ellemers, 2000; van Prooijen & van Knippenberg, 2000). This test was constructed in such a way that multiple answers were possible to lend credibility to the notion of individual differences in cognitive style without suggesting that the one style led to better solutions than the other. On completion of the test, we introduced the (nonexistent) individual difference dimension that was supposedly assessed by the test: Type H versus Type P cognitive style. We explained that the difference between H and P cognitive styles is associated with stable differences in problem-solving behavior. Participants then received bogus feedback about their own cognitive style. This was always said to be Type H. No further information about this cognitive style was provided.

Manipulation of Task requirements. Next, we introduced the group task. Via the computer, participants were required to work in a four-person group on an idea-generation task (in reality, no groups were formed and participants worked individually). Contingent on task requirement condition (see above), they were either told that their job as a group was to come up with unique ideas or with shared ideas for solutions to a problem (assigned later). Participants were subsequently informed about the alleged relationship between cognitive

style and idea generation. The HP dimension was said to be associated with substantial differences in the ideas people come up with, implying that HP diversity would be better in the unique ideas condition, whereas HP homogeneity would be preferable in the shared ideas condition.

Assessment of diversity beliefs. Next, participants were told that we would assign them to a group shortly, and give feedback about the composition of the group in terms of HP cognitive style. Before doing so, however, we first assessed diversity beliefs about group composition in terms of HP for the task at hand (i.e., either the unique ideas or the shared ideas task). Diversity beliefs were thus measured before participants were aware of the composition of their group. HP diversity beliefs were assessed with two items using the same basic format: "How good or bad do you think a group of people with all Type H style [half of them Type H style and the other half Type P style] is at producing unique [shared] ideas" (responses on 7-point *not good at all – very good* scales). These items were combined (reverse-scoring the all-H item) to yield a measure where higher scores indicate more pro-diversity beliefs ($r = .37$, $p < .0001$).

Manipulation of HP diversity. After the assessment of diversity beliefs, participants received bogus feedback about the composition of their group. In the *HP homogeneous* condition, they learned that all members of their four-person group had a Type H cognitive style. In the *HP diverse* condition, they learned that two members (i.e., including the participants him or her self) had a Type H cognitive style and two had a Type P cognitive style. The group composition feedback remained visible on the computer screen throughout the experiment.

Following group assignment, participants were requested to work for 15 minutes on generating solutions to the following problem: "How can the number of bicycle thefts be reduced?" (an issue of substantial relevance in The Netherlands). Participants could type in

their ideas, allegedly to be added to the total group production of ideas. Throughout this task, the need to produce either unique ideas or shared ideas (contingent on Task requirements condition) was highlighted on the computer screen.

Assessment of identification. After task completion, identification with the group was assessed with five items inspired by van Leeuwen et al. (2003). Items included "I feel a tie with this group", and "I have a lot in common with the other members of this group" (responses on 7-point disagree – agree scales). The aggregate score based on these items had adequate reliability, $\alpha = .76$.

After this, participants were paid and debriefed.

Results

Diversity Beliefs

Diversity beliefs about the value of homogeneous Type H versus HP diverse group composition were analyzed in an analysis of variance with HP diversity and Task requirements as between-participants factors (note that the HP diversity manipulation had not taken place at the time diversity beliefs were assessed). This analysis yielded the expected main effect of Task requirements, $F(1, 122) = 74.45$, $p < .0001$, $\eta^2 = .38$. Participants favored a diverse (HP) group composition ($M = 5.43$) more in the unique ideas condition than in the shared ideas condition ($M = 3.76$). No other effects were significant. We were thus successful in manipulating beliefs about HP diversity.

Identification

Identification was analyzed in a HP diversity x Task requirements analysis of variance. Two effects were significant, the main effect of Task requirements, $F(1, 122) = 8.34$, $p < .005$, $\eta^2 = .06$, and the HP diversity x Task requirements interaction, $F(1, 122) = 8.97$, $p < .003$, $\eta^2 = .07$ (see Figure 2). As predicted, in the unique ideas condition individuals identified more with their work group when it was heterogeneous on the HP dimension ($M =$

3.40, *SD* = 1.23) than when the group was homogeneous on the HP dimension (*M* = 2.52, *SD* = 1.13), $F(1, 122) = 9.20$, $p < .003$, $\eta^2 = .07$, for the simple main effect of HP diversity. When the task was to come up with shared ideas, heterogeneous groups elicited weaker identification (*M* = 3.38, *SD* = 1.03) than homogeneous groups (*M* = 3.70, *SD* = 1.32). Although this latter difference was not significant, $F(1, 122) = 1.35$, *ns*., $\eta^2 = .01$, identification with the homogeneous group was significantly higher in the shared ideas condition than in the unique ideas condition, $F(1, 122) = 16.82$, $p < .0001$, $\eta^2 = .12$, for the simple main effect of Task requirements. Our hypothesis was thus supported.

Mediational Analyses

To further substantiate the hypothesis that diversity beliefs moderated the effect of group composition on work group identification, we conducted a moderated mediation analysis to determine whether diversity beliefs mediated the moderating effect of Task requirements in the diversity-identification relationship. To do so, we added HP diversity beliefs as a continuous variable to our analysis of variance design for the analysis of identification, and tested both the diversity beliefs main effect and its interaction with HP diversity, in addition to the main effects of HP diversity and Task requirements, and the HP diversity by Task requirements interaction.

Results of this analysis showed that the HP diversity beliefs by HP diversity interaction was significant, $F(1, 120) = 8.86$, $p < .004$, $\eta^2 = .07$. The regression weight for this interaction, $b = .47$, indicated that more pro-diversity beliefs were more positively related to identification in HP diverse than in all-H homogeneous groups. The Task requirements by HP diversity interaction was no longer significant, $F(1, 120) = 2.14$, $p = .15$, $\eta^2 = .02$, suggesting that diversity beliefs mediated the moderating effect of Task requirements (Baron & Kenny, 1986). The main effect of Task requirements remained significant, $F(1, 120) = 4.24$, $p < .05$, $\eta^2 = .03$, suggesting that it is attributable to other processes than those underlying the effects

of diversity beliefs.

Discussion

Results of Study 2 are generally consistent with predictions. Task requirements informed HP diversity beliefs and interacted with HP diversity to affect identification. Moreover, the moderating effect of task requirements was mediated by diversity beliefs. In combination with the results of Study 1, then, Study 2 yields consistent evidence that diversity beliefs moderate the relationship between work group diversity and work group identification. Moreover, Study 2 was able to establish causality in this relationship.

In addition to the predicted effects, we also obtained a main effect of task requirements that was not attributable to diversity beliefs. Identification was higher in the shared ideas condition than in the unique ideas condition. Most likely, the shared ideas instructions made a sense of groupness salient, whereas the unique ideas instruction tended to focus more on participants' position as a unique individual. This finding thus is consistent with other evidence that contextual primes may affect identification (cf. Brewer & Gardner, 1996; Haslam, 2001), but does not bear on the present discussion about diversity beliefs and identification.

General Discussion

Across two studies using different methodologies, we found consistent evidence that diversity beliefs moderated the relationship between work group diversity and group identification. This supports our general argument regarding the role of diversity beliefs as moderators of responses to work group diversity. It is especially noteworthy that the present findings indicate that diversity may be associated with higher levels of identification than homogeneity. Earlier theoretical analyses of diversity's effects on the psychological relationship between the individual and the group seemed to converge on the conclusion that, if anything, diversity has negative effects on identification with the group (or on related

outcomes like commitment and cohesion). Although these analyses received at best only mixed support from empirical studies (van Knippenberg & Schippers, in press; Williams & O'Reilly, 1998), a theoretical argument why diversity would not be negatively related to psychological attachment to the group was still largely lacking. The present study provides such a theoretical analysis, supported by empirical findings, which suggests a more complex relationship between work group diversity and the psychological relationship between the individual and the group. Contingent on diversity beliefs, diversity and identification may either be positively or negatively related (or unrelated, if diversity beliefs neither favor diversity or homogeneity, or suggest the dimension of diversity is irrelevant to work group functioning). From an applied perspective, this suggest that organizations may benefit from fostering value-in-diversity beliefs. This could for instance be done by extending diversity training programs. Diversity training typically focuses on stereotypes about dissimilar others, where “valuing diversity” is taken to imply valuing different others (e.g., Kossek & Lobel, 1996; Rynes & Rosen, 1995). Importantly, our study suggests that complementing such a focus on appreciation of different others with a more explicit focus on the value of diversity as a work group characteristic may prove beneficial to the functioning of diverse groups.

The advantage of testing our hypothesis both in a survey of responses to work group diversity in organizations and in a controlled laboratory experiment is that the strengths of the one method may compensate for the weaknesses of the other. The strengths of Study 1 are that it yielded evidence from actual organizational settings, and, moreover, that it was not restricted to a single organization. Its obvious weaknesses are that it is correlational in nature, and thus silent on matters of causality, and that it relies on a sample of young employees that were also involved in an academic curriculum. The added value of Study 2 lies in the fact that it provided experimental evidence for the role of diversity beliefs, and replicated the basic finding of Study 1 in a different setting. At the same time, however, we should recognize that

Study 2 concerns a very minimal situation, with an experimentally induced dimension of diversity in a context where individuals have no contact with their (alleged) fellow group members. In this respect, Study 1 of course complements Study 2 with evidence from a more naturalistic setting. Also note that others studies combining minimalist group settings with field surveys likewise show that results from such settings generalize to the field (e.g., De Cremer, van Knippenberg, van Knippenberg, Mullenders, & Stinglhamber, 2005; De Cremer & van Knippenberg, 2002, 2004; van Knippenberg & van Knippenberg, 2005; van Knippenberg & van Leeuwen, 2001). Even so, an experimental replication in a more naturalistic setting would be worthwhile. Such a replication should also extend the current findings to nonacademic samples.

The fact that our main prediction was supported across methodologies provides important first support for our argument concerning the role of diversity beliefs. As yet this evidence is too modest to jump to far-reaching conclusions about the role of diversity beliefs, but we propose that it does hint at the potential of the diversity beliefs concept to advance our understanding of the effects of work group diversity. In this respect, we highlight three directions for future research that would seem particularly worthwhile.

First, it would seem important to explore whether diversity beliefs that favor diversity not only lead people to respond more favorably to work group diversity in terms of their psychological relationship with the group (i.e., identification, commitment, cohesion), but also whether they affect their actual behavior in the context of the group. Diversity research has suggested that work group diversity is related to intragroup conflict (Jehn et al., 1999; Pelled et al., 1999), in-depth processing of task-relevant information (Homan & van Knippenberg, 2003; Schippers et al., 2003; van Knippenberg et al., 2004), and group performance (Bantel & Jackson, 1992; Cox et al., 1991; Murnighan & Conlon, 1991). Results concerning these behavioral effects of diversity are quite inconsistent (Bowers et al., 2000;

Webber & Donahue, 2001; Williams & O'Reilly, 1998) and it would seem valuable to explore the role of diversity beliefs in these behavioral responses to diversity, and to see whether the concept of diversity beliefs can help resolve some of the inconsistencies in the literature. Indeed, the present analysis suggests that whether diversity has positive or negative effects on group process and performance is contingent on whether group members favor diversity or homogeneity.

Expanding the analysis of the role of diversity beliefs to group-level processes would also require the development of theory about individual-level diversity beliefs and group-level manifestations of these (cf. Kozlowski & Klein, 2000). Perhaps individual diversity beliefs simply feed into group process through their effects on individual behavior. It is quite conceivable, however, that socially shared diversity beliefs, or shared mental models for diversity (cf. Mohammed & Dumville, 2001; van Ginkel & van Knippenberg, 2003), are the more important factor here, and that individual level diversity beliefs mainly affect group process and performance to the extent that they affect the group's socially shared approach to diversity (van Knippenberg & Haslam, 2003). In this way, individual diversity beliefs may be predicted to have most impact when they manifest themselves in the form of an ideology that is shared within, and helps define, a higher-order entity (cf. culture/climate).

A second important direction for future research would seem to be to develop theory about the origins of diversity beliefs. In order to be able to manage diversity beliefs, we would need to know which factors underlie these beliefs. Study 2 identified task requirements related to the value of diversity as a source of diversity beliefs. Another obvious source would seem to be ideology. More multicultural beliefs and attitudes would be expected to result in diversity beliefs favoring diversity from a more societal (i.e., rather than task) perspective (cf. Chattopadhyay, 2003). Prior experience would also seem to be a source of diversity beliefs. In that respect, the fact that we were able to establish a causal link from

diversity beliefs to identification in Study 2 should not be taken as precluding the possibility that positive experience with diverse groups that feeds into identification also feeds into diversity beliefs. In sum, then, it would seem appropriate to explore individual differences as well as situational influences, both internal and external to the work group, as determinants of diversity beliefs and attitudes.

A third issue is that our empirical analysis only focused on diversity beliefs about one aspect of group functioning – performance. This might be the aspect that is most relevant to organizations, but it need not be the (only) aspect relevant to group members, and indeed as we outlined in the introduction diversity beliefs may concern other aspects of group functioning as well. Accordingly, it would be worthwhile to explore the role that diversity beliefs about a variety of aspects of group functioning (e.g., interpersonal relationships, long-term viability, etc.; cf. Hackman, 1987; Sundstrom, De Meuse, Futrell, 1990) play in a range of social and organizational processes. Such research might reveal that diversity beliefs about one aspect of diversity need not be consistent with diversity beliefs about other aspects (e.g., valuing homogeneity for social relationships, while valuing diversity for performance), and suggest a more complex picture of the role of diversity beliefs than the current one-dimensional approach.

Yet whatever direction future research takes, it would appear that empirical research exploring these issues and developing theory about the role of diversity beliefs in informing responses to diversity as well as about the sources of diversity beliefs is likely to increase our understanding of the effects of diversity. In doing so, it may also lay the foundations for management of diversity beliefs that contributes to the more effective management of diversity (van Knippenberg & Haslam, 2003).

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Table 1.

Means, Standard Deviations, and Intercorrelations for Study Variables, Study 1

Variable	*M*	*SD*	1	2	3	4
1. Work group size	11.51	8.41				
2. Gender[a]	-.26		.00			
3. Gender diversity	.15	.10	.17*	.10		
4. Gender diversity beliefs	3.39	.99	.08	.11	.49**	
5. Identification	3.62	.80	-.14*	-.01	-.04	-.10

Note. $N = 218$ (listwise).

[a] -0.5 = male, 0.5 = female

* $p < .05$; ** $p < .001$

Table 2.

Results of Hierarchical Regression Analysis, Study 1

Variable	*b*	*SE b*	β	ΔR^2
Step 1				
Work group size	-.01	.01	-.14*	.02
Gender[a]	-.00	.13	.00	.00
Gender diversity	.42	.65	.05	.00
Gender diversity beliefs	-.04	.07	-.05	.00
Step 2				
Gender diversity x beliefs	1.45	.59	.18*	.03

Note. $N = 218$ (listwise). Entries are statistics for Step 2.

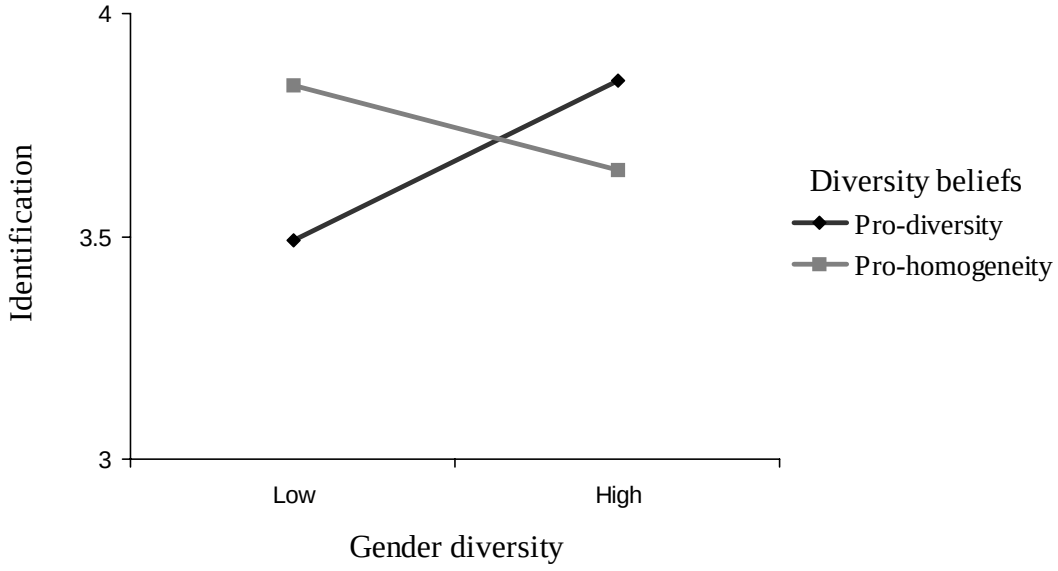
[a] -0.5 = male, 0.5 = female

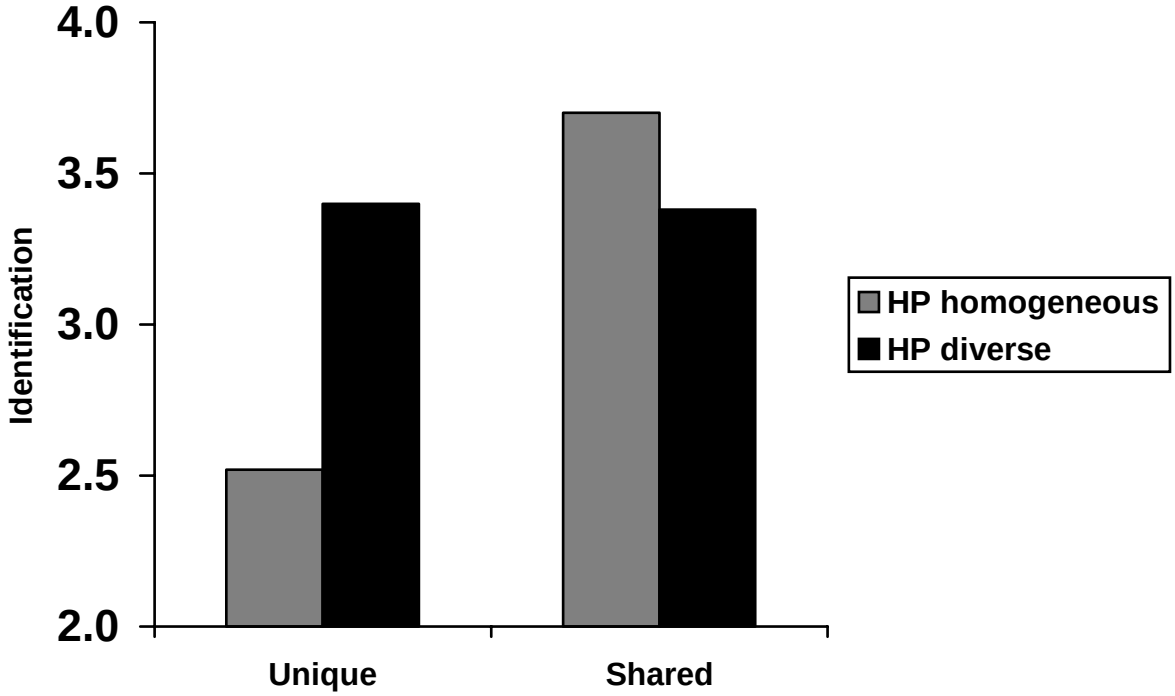
* $p < .05$

Figure Captions

Figure 1. Work group identification as a function of gender diversity and gender diversity beliefs, Study 1.

Figure 2. Work group identification as a function of HP diversity and Task requirements, Study 2.


4
3.5
3
Identification
Low
High
Gender diversity
Diversity beliefs
Pro-diversity
Pro-homogeneity


4.0
3.5
3.0
2.5
2.0
Identification
Unique
Shared
HP homogeneous
HP diverse

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