Gender Diversity and Team Identification

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Abstract

Many project-based organizations within the IT sector suffer from an underrepresentation of women (Chasserio & Legault, 2010). Although this underrepresentation has primarily been studied in light of undesirable consequences for women (cf. Lindgren & Packendorff, 2006), we argue that this skewed gender distribution is directly hurting both women and men. As individuals within project-based organizations are often required to work together in project teams, women and men are increasingly dependent on each other. Therefore, the underrepresentation of women is also likely to affect men. We focus in this present paper on the influence of gender diversity on men’s team identification. Individuals’ team identification is an important predictor of individuals’ commitment, satisfaction, and organizational citizenship behavior (Johnson, Morgeson, & Hekman, 2012). We study the influence of gender diversity on individuals’ team identification within project teams that are – in numbers – dominated by men. The results of this study suggest that men identify less with their team when one of the project members is a woman, and that this negative influence is stronger when teams are smaller. The negative influence of gender diversity on men’s team identification is, however, only present when men are less satisfied with the performance of their team. Building on black sheep effect theory, we argue that men that are less satisfied with their team are likely to try to protect their self-identity by lowering their team identification.

Keywords: gender diversity; team identification; project management; satisfaction.

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1. Introduction

Many project-based organizations, especially within the Information Technology (IT) sector, are suffering from an underrepresentation of women (Chasserio & Legault, 2010). Research has been linking this underrepresentation to gender-based favoritism (Legault & Chasserio, 2012). Argued is that women are discouraged from prevailing workplaces by gendered discourses (Legault & Chasserio, 2012). Within these discourses, women are typically perceived as less favorable than men (Lindgren & Packendorff, 2006). Women are, among others, considered as less committed to their jobs (Legault & Chasserio, 2012) and are more often excluded from information sharing processes (Gelbard & Carmeli, 2009). The status literature argues that individuals that are minorities in terms of numbers tend to be considered as less favorable than individuals that are ascribed to dominant groups of individuals (DiTomaso, Post, & Parks-Yancy, 2007). The underrepresentation of women is thus associated with lower levels of favorability towards women.

Women in solo status positions, i.e. when a woman is the only woman present among a larger amount of men, tend to be apprehensive about being a minority member (Sekaquaptewa & Thompson, 2003). Across several studies, gender diversity is found to have a negative influence on the team identification of minority members (Guillaume, Brodbeck, & Riketta, 2012). The underrepresentation of women is thus hurting women. Beyond the negative consequences for women, we argue that an underrepresentation of women has also negative consequences for men. As modern work is becoming more complex, a greater amount of projects require the combined input of sets of diverse individuals. Therefore, project-based organizations organize their work increasingly around project teams (Lindgren & Packendorff, 2006). Within these project teams, it is likely that men and women work interdependently. Because individuals prefer to identify themselves with favorable others (Tajfel, 1982), however, and men consider underrepresented women often as less favorable (Legault & Chasserio, 2012; Lindgren & Packendorff, 2006), it is likely that men identify less with their team when a woman is part of this team. As team identification is a predictor of commitment, satisfaction, organizational citizenship behavior (Johnson et al., 2012), and interaction within diverse teams (van Dick, van Knippenberg, Hägele, Guillaume, & Brodbeck, 2008; Van Knippenberg, De Dreu, & Homan, 2004), it is important to shed light on the ways in which gender diversity affects team identification.

In this paper, we study the influence of gender diversity on individuals’ team identification within project teams that are – in numbers – dominated by men. We expect that dissatisfaction with team performance triggers a negative influence of gender diversity on men’s team identification. Previous research illustrates in an experiment that individuals’ team identification can drop when an unfavorable individual becomes a member of the team (Eidelman & Biernat, 2003). Argued is that this team disidentification is an individualistic distancing strategy that protects the self-identity. By identifying less with the team, individuals feel a weaker association between the self and the unfavorable team member. A boundary condition for this strategy is that the unfavorable team member is a threat to the self-identity. We consider that a low team performance satisfaction elicits this threat. When individuals have stronger diversity beliefs, however, i.e. believe that diversity is beneficial for team performance, we expect that this threat is lower. Therefore, we expect that both team performance satisfaction and diversity beliefs moderate the relationship between gender diversity and individuals’ team identification. To test these moderated relationships, we conduct a survey study within a project-based organization in the IT sector.

2. Theoretical background

In this study on the gender diversity-team identification relationship, gender diversity refers to the proportion of women and men within a project team. Previous research on the effects of gender diversity has been focused on teams that vary in the composition of team members (cf. Guillaume et al., 2012). In this present study, gender diverse teams have a minority configuration, i.e. a team setting in which one gender group is underrepresented. In gender diverse teams with a minority configuration, team members are likely to get less favored when they belong
Individuals’ team identification is in this study conceptualized as the self-perceptions of the individuals with regards to the extent to which they consider themselves as one with their team (Johnson et al., 2012). In this study, we focus on the team identification of men. Individuals that have a stronger team identification tend to show more commitment, are more satisfied, and involve more in organizational citizenship behavior (Johnson et al., 2012). Furthermore, team identification is an important predictor of the performance of diverse teams (van Dick et al., 2008; Van Knippenberg et al., 2004). Diverse teams are argued to have a greater pool of informational resources that has the potential to benefit teams. When diverse teams are able to integrate these informational resources, they can outperform homogeneous teams. The integration of informational resources is believed to be influenced by individuals’ team identification (van Dick et al., 2008; Van Knippenberg et al., 2004). Argued is that integration of informational resources is hampered when individuals experience weaker levels of team identification. In contrast, this integration is argued to be stimulated when individuals experience a stronger team identification.

As previously introduced, we expect a negative relationship between gender diversity and men’s team identification. Social identity theory claims that individuals prefer to identify the self with favorable others (Tajfel, 1982). This preference is motivated by individuals' need for a high self-esteem. Identifying with favorable others boost one’s self-view. In working in teams, individuals therefore prevent identifying the self with unfavorable peers. Within project-based organizations, women are generally perceived as less favorable than men (Lindgren & Packendorff, 2006). This is a first reason to expect that gender diversity has a negative influence on men’s team identification. A second reason to expect this negative relationship is the minority role that is often ascribed to women within project-based organizations. In many project-based organizations, women are underrepresented (Legault & Chasserio, 2012; Lindgren & Packendorff, 2006). Hence, it is likely that women are minority members in project teams. Minority members are typically less favored by the majority group members, especially when the minority members are assigned to a less favored social category (DiTomaso et al., 2007), which is often the case in project-based organizations (Legault & Chasserio, 2012; Lindgren & Packendorff, 2006). Therefore, we expect that men identify less with their project team when a solo status woman is a member of the team.

The negative influence of gender diversity on men’s team identification can also be explained based on black sheep effect theory (Marques, 2010; Marques, Yzerbyt, & Leyens, 1988). Black sheep effect theory, which is part of social identity theory, suggests that socially undesirable individuals are evaluated more harshly when these individuals are part of the in-group (Marques, 2010; Marques et al., 1988). In-group members are, in contrast to out-group members, individuals that are considered to belong to the same social group as the self. Within a project-based organization, project team peers could be seen as in-group members. When an unfavorable solo status woman would thus be a team member, black sheep effect theory claims that this member would be evaluated harsher than other team members. By this harder evaluation, one believes to distinguish the self from the unfavorable individual. An alternative to this harsher evaluation is team disidentification, i.e. lowering the extent to which you consider the self as one with the team (Eidelman & Biernat, 2003). Team disidentification weakens the link between the self and the unfavorable peer, and makes harsher evaluating unfavorable in-group members superfluous. Therefore, also from a black sheep effect theory perspective it is likely that gender diversity has a negative influence on men’s team identification. We thus hypothesize the following relationship.

Hypothesis 1: Gender diversity has a negative influence on men’s team identification.

Black sheep effect theory claims that team disidentification is only present when individuals experience a threat (Marques, 2010; Marques et al., 1988). Cooperating with an unfavorable peer can be considered a threat if the (low) level of favorability of the peer is expected to be associated with the self or the team one is part of (Shapiro & Neuberg, 2007). We argue that this threat is more present when individuals are less satisfied with their team performance. When individuals are more dissatisfied with their team performance, it is more likely that they will reflect on this team performance. Subsequently, if one of the team members is considered unfavorable, this unfavorable person is likely to be perceived as a threat to the self. Therefore, we expect that individuals’ team
performance satisfaction moderate the relationship between gender diversity and individuals’ team identification.

Identity threat is believed to be a main factor that drives intergroup biases such as gender related favoritism (Van Knippenberg et al., 2004). In the absence of identity threat, however, individuals sometimes value diversity more than homogeneity (Van Knippenberg et al., 2004). Gender diversity is argued to have beneficial outcomes. Among others, gender diversity is argued to contribute to the innovativeness of teams (van Dijk, van Engen, & van Knippenberg, 2012). Furthermore, project teams performance has been shown to benefit from having both masculine and feminine skills (Buckle & Thomas, 2003). Although men and women do not exclusively nor intrinsically have respectively masculine and feminine skills, men and women have different tendencies to exhibit certain types of skills that are complementary in managing projects. Thus, gender diversity is potentially beneficial for team performance. Moreover, teams with minority configurations can benefit from minority influence (Nemeth, 1986; Wood, Lundgren, Ouellette, Busceme, & Blackstone, 1994). Team members in minority roles can for example stimulate divergent thinking and facilitate the discovery of novel solutions and decisions (Nemeth, 1986). Therefore, a gender diverse project team with a minority configuration can be perceived as favorable for project team performance. As individuals prefer to identify with favorable others, it is likely that gender diversity can result in more team identification when individuals believe that the diversity within the project team is favorable for project team performance.

Previous research has focused on the impact of individuals’ perspectives on team diversity. Van Dick and his colleagues illustrated that diversity beliefs, “the extent to which individuals believe there is value in diversity (or similarity)”, influences the relationship between perceived team diversity and team identification (2008, p. 1464). They found evidence for their expectation that the influence of perceived team diversity on team identification is more positive when team members hold diversity beliefs rather than similarity beliefs. Thus, we hypothesize the following relationships.

**Hypothesis 2:** The relationship between gender diversity and men’s team identification is negatively moderated by team performance satisfaction.

**Hypothesis 3:** The relationship between gender diversity and men’s team identification is negatively moderated by diversity beliefs.

### 3. Research methods

The research model was tested based on survey data collected within a technical department of a multinational Northern European IT services provider. These data were gathered among 121 individuals (116 men, 5 women) belonging to 10 different project teams with sizes varying from 3 to 21 members ($M = 12.1, SD = 6.14$). 46 of the 121 department members, representing all 10 project teams, filled out a survey in which they reported: their demographics, their team identification, and their team performance satisfaction. Across these project teams, individuals are responsible for comparable technical work activities. Therefore, in smaller project teams, team members are more interdependent on each other than in larger project teams. Before analyzing the data, we excluded 4 women that filled out the survey. In Table 1, we present an overview the teams that were included in this analysis.

**Gender diversity** of project teams was calculated based on the gender characteristics of the 121 department members. Blau’s index of heterogeneity (Blau, 1977), the recommended index for calculating diversity of categorical variables (Harrison & Klein, 2007), was used for this calculation. This index was calculated for the 10 project teams. Half of these project teams consisted solely of men, the other half of the project teams consisted of men and one woman. As larger project teams are less interdependent, women are likely to experience similar minority positions across teams.
Team performance satisfaction of individuals was measured by a 2-item scale developed by Gevers and Peeters (2009). An example item of this scale is “How satisfied are you with your team’s performance?”. Participants were asked to rate their answers on a 5-point scale ranging from 1 (highly unsatisfied) to 5 (highly satisfied).

Diversity beliefs of individuals was measured by an adapted scale of Nakui, Paulus, and Van der Zee (2011). We selected 6 items related to general diversity beliefs. An example item of the scale is “Groups whose members are diverse will be more creative”. Questions were rated on a 5-point scale ranging from 1 (strongly agree) to 5 (strongly disagree).

Team identification of individuals was measured with the 4-item scale that was developed by Johnson and his colleagues as well (2012). A sample item of this scale is “My self-identity is based in part on my membership in my team”. Questions were rated on a scale ranging from 1 (strongly agree) to 5 (strongly disagree).

Table 1. Respondents per team.

<table>
<thead>
<tr>
<th>Team number</th>
<th>Team size</th>
<th>Amount of respondents</th>
<th>Gender diverse team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>2</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>4</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>4</td>
<td>Yes</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>7</td>
<td>Yes</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>6</td>
<td>No</td>
</tr>
<tr>
<td>9</td>
<td>19</td>
<td>6</td>
<td>Yes</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>5</td>
<td>Yes</td>
</tr>
</tbody>
</table>

4. Results

Table 2 displays means, standard deviations, and reliabilities. Furthermore, this table presents the results of a correlation analysis that we conducted in order to test hypothesis 1. As reported in table 2, the variables team performance satisfaction and diversity beliefs are significantly related ($r = .32, p > .05$). Although we expected a negative relationship between gender diversity and team identification, there is only a moderate significant relationship between these variables ($r = -.28, p < .10$). Thus, only moderate support for Hypothesis 1 is found.

Table 2. Descriptive statistics and correlations.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender diversity</td>
<td>.08</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Team performance satisfaction</td>
<td>2.92</td>
<td>.63</td>
<td>-.06</td>
<td>(.90)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Diversity beliefs</td>
<td>3.04</td>
<td>.62</td>
<td>.02</td>
<td>.32*</td>
<td>(.85)</td>
<td></td>
</tr>
<tr>
<td>4. Team identification</td>
<td>2.32</td>
<td>.71</td>
<td>-.28†</td>
<td>.05</td>
<td>.16</td>
<td>(.92)</td>
</tr>
</tbody>
</table>

Note: Cronbach $\alpha$s are reported on the diagonal between brackets. $N = 46$.

† $p < .10$, two-tailed; * $p < .05$, two-tailed.

To analyze the moderating influence of both team performance satisfaction and diversity beliefs on the gender diversity-team identification relationship, hierarchical regression analyses were performed. These analyses were performed using centered variables (Aiken & West, 1991). In the first step of the analyses, the main effects were entered (i.e., gender diversity and either team performance satisfaction or diversity beliefs). In the second step, the
interaction between gender diversity and either team performance satisfaction of diversity beliefs was added. In model 1 of our regression analysis, team identification is regressed on gender diversity, team performance satisfaction, and its interaction term. In model 2, team identification is regressed on gender diversity, diversity beliefs, and its interaction term. The results of these analyses are reported in table 3.

Table 3 indicates that one of the two interactions is moderately significant. Gender diversity and team performance satisfaction have a moderately significant interaction effect on team identification. There is thus moderate support for Hypothesis 2. The interaction term referring to the moderating impact of diversity beliefs on the influence of gender diversity on team identification is non-signification. This indicates that no support is found for Hypothesis 3. Following the plotting procedure of Aiken and West (1991), we plotted the interaction effect between gender diversity and team performance satisfaction on team identification (see Figure 1). For individuals that experience lower levels of team performance satisfaction (-1 SD), the simple slope of the relationship between gender diversity and team identification is -5.10 (B, SE = 1.76), with 95% confidence intervals of respectively [-8.66, -1.54]. The simple slope for individuals with higher levels of team performance satisfaction (+1 SD) is non-significant.

The interaction between gender diversity and team performance satisfaction explains 17% of the variance in team identification. The interaction plot (see Figure 1) illustrates that the relationship between gender diversity and individuals’ team identification is negative when individuals are less satisfied with the performance of their team. When individuals are more satisfied with their team performance, the negative relationship between gender diversity and team identification becomes non-significant.
5. Discussion

This study is inspired by gender related favoritism and the low proportion of women that fulfill workplaces in IT project-based organizations (Legault & Chassero, 2012; Lindgren & Packendorff, 2006). Favoritism towards men and the underrepresentation of women is believed to be consequential for women. We argue that, especially since individuals often need to work together in teams, gender diversity is of relevance for all employees, both for women and men. The main goal of this study is to shed light on the ways in which gender diversity in teams affects men’s team identification.

Our study focuses on individuals’ team identification in gender diverse project teams that mainly exist of men. Evidence is provided for a moderately negative relationship between gender diversity and men’s team identification. Men in gender diverse project teams that have a gender-based minority configuration are, however, only likely to identify less with their team when they are less satisfied with the team performance.

Understanding individuals’ team identification is important for both predicting individual’s attitudes (Johnson et al., 2012) and team performance (van Dick et al., 2008; Van Knippenberg et al., 2004). An important theoretical implication of this study is that the team identification of individuals from majority groups of gender diverse teams can suffer from having a gender related minority configuration. Although previous studies have focused on the relationship between gender diversity and team identification (cf. Guillaume et al., 2012), there has been little attention for the role of minority configurations for majority team members’ team identification. Furthermore, our findings have theoretical implications for experiment-based knowledge on the black sheep effect (Eidelman & Biernat, 2003). As our findings suggest that gender diversity has only a negative influence on individuals’ team identification when individuals experience lower team performance satisfaction, it is likely that also in field settings, majority members tend to disidentify with their team when they feel a threat. In contrast with a pervious study (van Dick et al., 2008), no significant influence was found of diversity beliefs on the relationship between gender diversity and team identification. This inconsistency might be explained by the minority configurations in this present study. Possibly, individuals with strong diversity beliefs might consider a gender-based minority configuration not the form of diversity they perceive as valuable.

An important practical implication of this study is that team characteristics are likely to influence individuals’ team identification. Individuals in teams that have gender-based minority configurations are likely to experience lower levels of team identification. In a post-hoc analysis, in which we include all respondents (i.e. both men and
women), gender diversity had a significant negative influence on individuals’ team identification ($r = -0.31, p < .05$).

This study has several limitations. First of all, the small sample size of this study restricted us in our analysis. Secondly, because we did not receive response from all respondents, we were not able to analyze team-level outcomes of gender diversity. Thirdly, in the argumentation for the hypotheses, we explain that gender related favoritism within project teams is likely to influence individuals’ team identification. In our research model, however, we did not include gender related favoritism. In similar vein, we argue that low team performance satisfaction is experienced as a threat among individuals. Yet, we did not measure threat explicitly.

We encourage scholars to replicate this study with a bigger sample. Current study findings could be biased by characteristics of our specific sample. In replicating this study, we suggest to focus on how team diversity is related to team identification (e.g., mediated by team configurations), to include outcomes of group identification (e.g., team dynamics and team performance), and to test the moderating influence of both team performance satisfaction and identity threat on the main relationship.

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References

