Feeling Included and Valued: How Perceived Respect Affects Positive Team Identity and Willingness to Invest in the Team

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Previous research has documented that intra-group respect fosters individual engagement with work teams or organizations. The authors extend this work by empirically distinguishing between perceived inclusion of the self in the team and perceived value of the self for the team as separate psychological consequences of respect. Based on a social identity analysis, it is predicted that perceived inclusion facilitates the development of a positive team identity (how the individual feels about the team), while perceived value elicits the willingness to invest in the team (what the individual is willing to do for the team). Support for these predictions is obtained with structural equation modelling among two independent samples of professional soldiers working in military teams (n\text{total} = 495). Reports of individual team members about positive team identity and willingness to invest in the team correlated with supervisor ratings of the team’s action readiness.

Introduction

Recent theory and research explaining how non-instrumental factors can contribute to cooperation and effort on behalf of one’s team (or organization) have established the significance of perceived respect in this process (Blader and Tyler, 2009; Boezeman and Ellemers, 2007; Smith, Tyler and Huo, 2003; Tyler and Blader, 2003). This work assumes that respect affects team-relevant cognitions and behaviours because it induces a sense of inclusion, and communicates how the individual is valued by the team (Huo and Binning, 2008; Smith, Tyler and Huo, 2003; Tyler and Blader, 2003). However, previous research has not explicitly examined feelings of inclusion and value that result from perceived respect (see Huo and Binning, 2008, for a similar critique). We connect work on intra-group respect with current developments in social identity research, which have begun to distinguish between ‘self-definitional’ and ‘self-investment’ aspects of group identification (Leach et al., 2008; Spears et al., 2006). We propose that inclusion...
and value indicate different psychological processes which affect the way the individual feels about the group, and what the individual is willing to do for the group, respectively (see also Huo and Binning, 2008). In the present research, we therefore empirically separate the inclusion and value consequences of respect. We examined their distinct contributions to feelings of positive team identity, on the one hand, and the willingness to invest in the team reported by individual team members, on the other, and investigated how both affect supervisor ratings of the team’s ability to perform well.

Respect, inclusion and value

Social identity theory (Tajfel, 1978; Tajfel and Turner, 1979) posits that social identification processes guide individual perceptions and behaviours: the tendency of individuals to think of themselves in terms of the social groups or collectives to which they belong. In addition to group-level characteristics (such as the team’s status or organizational prestige) which may affect the perceptions, behaviours and performance of individual workers (see Ellemers, de Gilder and Haslam, 2004; Hogg and Terry, 2000; Van Knippenberg and Ellemers, 2003), intra-group respect has been proposed as a relevant individual-level construct to predict and understand individuals’ willingness to obey authorities, to comply with rules and regulations, and to show cooperative behaviour in organizations (Smith et al., 1998; Tyler and Blader, 2003). When someone is respected by other team members, this conveys that the individual is valued by them (Ellemers, de Gilder and Haslam, 2004) and is included as a full member of the team (De Cremer and Tyler, 2005; Leary et al., 2003). Although people can be respected in different domains (e.g. task-related vs relational respect), which each may have a unique effect (Spears, Ellemers and Doosje, 2005), in general, individuals who feel respected by other team members tend to engage psychologically and behaviourally with the team (Branscombe et al., 2002; Tyler and Blader, 2003), for instance, by reporting increased identification with the team (Sleebos, Ellemers and de Gilder, 2006b), or indicating a willingness to invest in team goals (Tyler and Blader, 2003). To date, however, feelings of inclusion and value have not been explicitly assessed in research on the effects of intra-group respect.

Much of the work that has applied social identity theory to understanding individual behaviour in teams, groups or organizations has treated social identity as a unified construct (e.g. Ashforth and Mael, 1989; Hogg and Terry, 2000). Nevertheless, research suggests that this is not always appropriate. Recent measures to assess the impact of group-level characteristics on the identity of individual group members tend to distinguish between different components of identity, and demonstrate how each component relates to specific antecedents and consequences (see Ashforth, Harrison and Corley, 2008; Ellemers, Kortekaas and Ouwerkerk, 1999; Leach et al., 2008; Ouwerkerk, Ellemers and de Gilder, 1999; Van Dick et al., 2004). For instance, whereas minority vs majority size of the group was found to have an impact on self-definitional aspects of identification, relative status of the group predicted group-based self-esteem (Ellemers, Kortekaas and Ouwerkerk, 1999).

Based on this previous work, we explain the impact of respect by distinguishing between different aspects of social identification when examining the effects of respect on the responses of individual team members. To be able to specify the psychological processes underlying these effects in more detail, we refer to the distinction between self-definitional and self-investment aspects of the relation between individuals and groups (Leach et al., 2008). We argue that group identification, on the one hand, indicates the extent to which one perceives the self as included in the group and, on the other hand, refers to the sense of value derived from the group. Indeed, even though they may covary (Leary et al., 2003; Smith, Tyler and Huo, 2003), these two aspects of social identification do not necessarily go together. For instance, newcomers into the group may fulfill all objective criteria for inclusion, while they are not (yet) valued by other group members. Conversely, someone with specific expertise may be highly valued while not being seen as truly included in the group (see also Branscombe et al., 1999; Ellemers, Spears and Doosje, 2002; Spears, Ellemers and Doosje, 2005). Nevertheless, these insights have so far not been incorporated in the psychological literature on respect, which tends to treat social identification as a unified construct. This is why we examine perceived inclusion and
value as indicating separate (self-definitional and self-investment) psychological processes in individual team members which relate to intra-group respect. We predict that:

**H1**: Perceived respect from other team members is positively related to individual perceptions of inclusion in the team.

**H2**: Perceived respect is positively related to the perceived value of the self for the team.

**Inclusion and positive team identity**

Inclusion of the self in the group refers to the cognitive connection between the individual self and the group self, and indicates the importance of the group for the self (Ellemers, Kortekaas and Ouwerkerk, 1999; Mael and Ashforth, 1992; Van Knippenberg and Sleebos, 2006). Inclusion refers to the tendency of the individual to think of the self in terms of the group, and to see group characteristics as applying to the self (Turner, 1987; see also Leach et al., 2008). As a result of the general desire to think positively of the self, a core prediction of social identity theory is that people are motivated to hold favourable views of the groups that include the self (Tajfel, 1978; Tajfel and Turner, 1979; Turner, 1987). Accordingly, research has shown that those who are more inclined to see the self as included in a group tend to think well of the group: for instance, by ascribing positive characteristics to the group (Haslam and Ellemers, 2005; Tajfel and Turner, 1979; Van Knippenberg and Ellemers, 1990). To specify that we address the tendency of individual group members to afford positive valence to the group (not strength of identification), we use the term ‘positive team identity’ to indicate this. Based on our analysis and previous research, we predict that perceived inclusion of the self in the group relates to the way individuals feel about their group.

**H3**: The perceived inclusion of the self in the team is positively related to the tendency of individual team members to report a positive team identity.

**Value and willingness to invest in the team**

Whereas inclusion indicates the importance of the group for the self, value refers to the perceived importance of the self for the group (Smith et al., 1998; Tyler and Blader, 2003; Tyler, Degoe and Smith, 1996). We note that the degree to which individuals are respected by the group does not necessarily impact on their generic sense of value or positive self-regard. Instead, respect communicates the degree to which the individual is valued as a member of that group, as it refers to the potential contribution of the individual to the group (Ellemers, de Gilder and Haslam, 2004; see also Sleebos, Ellemers and de Gilder, 2006a, 2006b). We argue that it is this specific sense of value of the self for the group that is relevant for the willingness to invest in the group. Individuals who feel valued by the group perceive themselves as worthy contributors of the group and will be motivated to expend effort on the group’s behalf (Huo and Binning, 2008; Leach et al., 2008; see also Judge and Bono, 2001), for instance by engaging in group tasks (Ouwerkerk, Ellemers and de Gilder, 1999; Tyler and Blader, 2003). Accordingly, when we distinguish value from inclusion, we predict that the perceived value of the self for the group relates primarily to what individuals are willing to do for the group.

**H4**: The sense of value reported by team members is positively related to their willingness to invest in the team.

In sum, we argue that inclusion and positive team identity primarily speak to the shared features of the team and how these reflect on the self, whereas value and willingness to invest in the team refer to individual contributions to the team. In line with this more precise conceptualization of inclusion and value, and extending previous research distinguishing between different components of social identification, we examine these as two psychological processes which both relate to perceived intra-group respect, but indicate different paths that connect the individual to the group.

**Positive team identity, willingness to invest and team-level outcomes**

When performing collective tasks, individual team members rely on each other to be able to carry out their own work and be successful as a team (see also Ashforth and Mael, 1989; Dutton, Duikerich and Harquail, 1994). Team members who report a positive team identity are likely to
enhance mutual confidence and instil a sense of collective efficacy which will help the team to engage, persist and succeed (Shamir et al., 2000). This is why we argue that individual team members who indicate a positive team identity contribute to the team’s ability to perform well (see also Tanghe, Wisse and van der Flier, 2010; Van Dick et al., 2006; Van Knippenberg and Ellemers, 2003).

For a team to be successful, individual team members need to be prepared to help others in their team (Borman and Motowidlo, 1993; Motowidlo and Van Scotter, 1994), or to compensate for the shortcomings of other team members. In many work situations, the willingness of individual group members to invest effort into the achievement of team goals is crucial for team performance, and may enhance the organization’s competitive advantage (Borman and Motowidlo, 1993; Motowidlo and Van Scotter, 1994; see also Ellemers, de Gilder and Haslam, 2004). Accordingly, when individual group members are willing to invest in the team, this contributes to the team’s ability to perform well.

The military teams we examined were in training to be sent on an international peacekeeping mission. In this context, the performance of the team in meeting these training goals is reflected in the degree to which it is ready to be brought into action, which is a variable of particular interest to the military organization where this study was conducted. This is why we assessed supervisor ratings of the team’s ‘action readiness’ as a team-level variable indicating the team’s ability to perform well. With respect to this variable, we predict:

\[ H5: \text{At the team level, the average willingness of individual team members to invest in the team and the degree to which they report a positive identity are positively related to the team’s action readiness, as rated by the team supervisor.} \]

We test our two-path model (see Figure 1) with data provided by two independent samples of professional soldiers in training for an international peacekeeping mission. In addition to self-reports of individual soldiers indicating perceived respect, inclusion, value, positive identity and willingness to invest in the team, we also assessed whether the reports of positive team identity and willingness to invest provided by individual team members were reflected in the way the team’s action readiness was rated by its supervisor.

Method

Research context, samples and procedures

Two field survey studies were conducted in cavalry battalions of the Royal Netherlands Armed Forces. These battalions were specifically formed for peacekeeping missions under NATO’s stabilization force command in Bosnia Herzegovina (former Yugoslavian Republic). The first battalion (Battalion ‘Alpha’) was formed in January 2003 (their peacekeeping mission would start in May 2003 and would last until November 2003). The second battalion (Battalion ‘Bravo’) was formed in July 2003 (their peacekeeping mission would start in November 2003 and would last until May 2004; owing to differences in the historical and political conditions under which these battalions performed their tasks, we analysed the results for each battalion separately). In each of the participating teams, both soldiers and their supervisors completed our questionnaires.
This was done after teams had completed at least two months of training in the Netherlands for their missions. The questionnaires were included in the standard military monitoring surveys. For this reason, a strict limit was imposed on the number of questions we could ask to assess the variables in the model, and no opportunity was provided to include additional constructs that might be of interest. We were able to acquire completed questionnaires from about 90% of the professional soldiers and their supervisors in the battalions examined.

**Battalion Alpha.** In the subordinate survey, 30 participants (6 women and 24 men) from the initial sample of 298 participants were excluded because of missing data. The final sample included 268 professional soldiers (151 soldiers and 108 corporals; 18 women and 246 men ranging in age from 18 to 32, Mdn = 21). Two participants did not indicate their age, nine participants did not indicate their military rank, and four participants did not indicate their gender. The participants belonged to 19 different teams, ranging in size from 4 to 29 soldiers. In the supervisor survey, 25 officers participated (men ranging in age from 20 to 53, Mdn = 28), because some of the larger teams (six teams in total) had two supervisors rating the same team. In these cases, responses from the two supervisors were averaged.

**Battalion Bravo.** In the subordinate survey, 65 participants (4 women and 61 men) from the initial sample of 292 participants were excluded because of missing data. The final sample included 227 professional soldiers (134 soldiers and 90 corporals; 8 women and 214 men ranging in age from 18 to 33, Mdn = 21). Four subordinates did not indicate their age, three subordinates did not indicate their military rank, and five subordinates did not indicate their gender. The participants belonged to 13 different teams ranging in size from 6 to 30 soldiers. In the supervisor survey, 13 officers participated (men ranging in age from 21 to 52, Mdn = 29). One supervisor did not indicate his age.

**Measures**

Participants were asked to indicate their answers on five-point scales (1 = ‘strongly disagree’ to 5 = ‘strongly agree’). In order to calculate descriptive statistics and conduct correlational analyses, we averaged item ratings to form overall scores (the separate items comprising the scales used in the questionnaire are detailed in Table 1). Because the military organization in which this study was conducted refers to the units examined as ‘teams’ (regardless of their size), the questionnaires consistently referred to ‘your team’.

*Perceived respect.* The extent to which participants felt respected by their comrades in their team was measured with three statements. These referred to three elements of individual performance at work which were relevant to the team context, by asking whether individual team members felt that they were respected for their personal qualities, for their individual achievement and for their cooperation. Together, these intended to assess perceptions of performance-related respect in task teams as a unified construct1 (Sleebos, Ellemers and de Gilder, 2006b).

*Inclusion of self in the team.* Participants’ perceived inclusion in their team was assessed with three statements derived from the measure developed by Mael and Ashforth (1992) to assess organizational identification. We modified the original items to refer to the team rather than the organization. Furthermore, because we intended to assess perceived inclusion of the self in the team as a specific aspect of the broader identification construct, we selected a sub-set of items which focused on the extent to which participants per-

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1To test the convergent validity of our performance-related respect in task teams scale, we computed the average variance extracted (AVE; see Fornell and Larcker, 1981). The AVE measures the average amount of variance of the individual items that the common factor of the scale explains. As such, it is regarded as an indicator of convergent validity and thus shows the extent to which the individual items are elements of one bigger construct. The cut-off point for a ‘good’ AVE is 0.5 (Fornell and Larcker, 1981). The AVE of perceived respect in our samples are 0.86 (Battalion Alpha) and 0.82 (Battalion Bravo), indicating very good convergent validity. Additional correlational analyses confirmed our approach to assess perceptions of performance-related respect in task teams as a unified construct. The three separate items from our respect construct independently correlated significantly with ‘value of self for the team’ and ‘inclusion of self in the team’; these correlations were comparable and did not significantly differ from each other.
received themselves in terms of characteristics of the team to which they belonged (see also Van Knippenberg and Sleebos, 2006).

**Value of self for team.** The perceived value of the self for the team was measured with two items adapted from the performance-related subscale of the self-esteem scale developed by Heatherton and Polivy (1991). We selected these specific items specifically to indicate the perceived value of the individual’s contribution to the team’s performance as the focal aspect of relevance to the present research question.

**Positive team identity.** To assess positive team identity, we used three items based on the measure developed by Gal (1986) (Griffith, 2001; Shamir et al., 2000), as this measure most clearly refers to the military context in which these teams define their identity. Again, we selected specific items to assess the focal construct of positive team identity within this broader measure. These focused on participants’ perception of the morale among their comrades, the perceived action readiness of the team, and their beliefs about the team’s persistence in accomplishing its tasks.

**Willingness to invest in the team.** With three statements adapted from the measure developed by Borman and Motowidlo (1993), we assessed team members’ willingness to invest effort in the functioning of their team. The selected items focused on the willingness to facilitate one’s comrades and help compensate for other team members’ shortcomings (Borman and Motowidlo, 1993; Motowidlo and Van Scotter, 1994).

**Supervisor ratings of ‘action readiness’.** In addition to self-report data from participants, we also obtained supervisors’ ratings of the team. The common goal of the team members participating in the study was to prepare themselves as a team

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**Table 1. Confirmatory factor analysis** for perceived respect, inclusion of self in team, value of self for team, positive team identity and willingness to invest in the team

<table>
<thead>
<tr>
<th>Items</th>
<th>Battalion Alpha</th>
<th>Battalion Bravo</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Perceived respect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have the feeling that my comrades in my team respect me for my ways of cooperation</td>
<td>0.89</td>
<td>0.80</td>
</tr>
<tr>
<td>I have the feeling that my comrades in my team respect me for my qualities</td>
<td>0.91</td>
<td>0.91</td>
</tr>
<tr>
<td>I have the feeling that my comrades in my team respect me for the achievements I attain during work</td>
<td>0.87</td>
<td>0.85</td>
</tr>
<tr>
<td>2. Inclusion of self in team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The successes of my team are my successes</td>
<td>0.56</td>
<td>0.54</td>
</tr>
<tr>
<td>When I talk about my team, I usually say ‘we’ rather than ‘they’</td>
<td>0.80</td>
<td>0.71</td>
</tr>
<tr>
<td>When someone praises this team, it feels like a personal compliment</td>
<td>0.84</td>
<td>0.73</td>
</tr>
<tr>
<td>3. Value of self for team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I contribute to the success of my team</td>
<td>0.86</td>
<td>0.88</td>
</tr>
<tr>
<td>I am important for the good functioning of my team</td>
<td>0.62</td>
<td>0.67</td>
</tr>
<tr>
<td>4. Positive team identity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Even in the most severe circumstances, my team will do anything to accomplish our tasks</td>
<td>0.64</td>
<td>0.81</td>
</tr>
<tr>
<td>My team is ready to be brought into action at a military operation</td>
<td>0.64</td>
<td>0.70</td>
</tr>
<tr>
<td>The morale in my team is excellent</td>
<td>0.55</td>
<td>0.70</td>
</tr>
<tr>
<td>5. Willingness to invest in team</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I see that someone has problems doing the job, I will assist</td>
<td>0.72</td>
<td>0.75</td>
</tr>
<tr>
<td>Although it is not required, I will do extra work if that can prevent others from having problems</td>
<td>0.77</td>
<td>0.69</td>
</tr>
<tr>
<td>I will intervene unasked if that prevents others from making mistakes</td>
<td>0.69</td>
<td>0.62</td>
</tr>
</tbody>
</table>

*All factor loadings are significant at p < 0.05.*
which could be sent on a peacekeeping mission. This is why team supervisors were asked to rate the progress of their team in reaching this common goal by having them assess the ‘action readiness’ of their team (see also Gal and Manning, 1987; Griffith, 2001; Shamir et al., 2000). For this purpose, the following item was used: ‘My Company is ready to be brought in action at a military operation’.

Analytical procedures

Supervisor ratings of action readiness represented the ‘final’ outcome variable in our model. This variable only has variance at the group level. Therefore, we were unable to perform multilevel analysis. To overcome this problem, we conducted analyses at both individual and group levels. We performed the individual-level analyses on a filtered covariance matrix which only included individual-level variance (and no group-level variance). Therefore, group-level variables could not influence these findings. Subsequently, we conducted the analyses on measures aggregated to the group level. Both types of analyses showed similar results. We conducted preliminary analyses to check whether participants’ age, gender or military rank influenced relations between the model variables. Because this turned out not to be the case, we did not include these background variables further in our main analyses.

Individual-level analyses. Individual-level analyses are based on data from subordinates from two different battalions (Battalion Alpha, n = 268; Battalion Bravo, n = 227, given list-wise deletion of missing values). First, we assessed the validity and reliability of our measures. We conducted confirmatory factor analyses and tested for discriminant validity to establish the independence of the scales intended to assess distinct constructs. We used multi-sample modelling to examine the validity and reliability of the measurement model across both sets of data. We also conducted common method bias analyses to exclude the possibility that the response patterns observed in these data sets simply reflect common method bias. Second, we tested the hypothesized model using structural equation modelling and compared its fit with the data with that of relevant alternative models. All these analyses were executed in EQS 6.1 for Windows (Bentler and Wu, 2004). The reported fit-indexes are chi-squares ($\chi^2$; differences in nested model fits are indicated by $\Delta \chi^2$), standardized root mean-squared residual (SRMR), the Bentler–Bonett normed fit index (NFI), Joreskog–Sorbom’s GFI (GFI) and Akaike’s information criterion (AIC). The latter statistic allows a comparison of the fit of different non-nested models: the model with the lowest AIC score should be favoured (see Bentler and Wu, 2004).

Team-level analyses. To be able to assess how supervisor ratings of the team as a whole relate to the self-reports provided by individual team members, we aggregated the scores of the model variables at the team level. We also estimated intra-class correlations (ICC) of the constructs to establish their meaning at the group level. In order to diminish the loss of power that such an aggregation entails, we combined the team-level data samples for Battalion Alpha and Battalion Bravo (resulting in 32 team-level observations using pairwise deletion).

Results

Individual-level: preliminary analysis

Confirmatory factor analyses. Using confirmatory factor analysis, we assessed whether the constructs of perceived respect, inclusion of self in the team, value of self for the team, positive team identity, and willingness to invest in the team could be statistically distinguished from each other in the current data sets. The results of these analyses are summarized in Table 2. The proposed five-factor model yielded excellent fit-indexes for Battalion Alpha ($\chi^2_{67} = 61.97, \ p = 0.65, \ SRMR = 0.03, \ NFI = 0.96, \ GFI = 0.97$) and Battalion Bravo ($\chi^2_{65} = 80.94, \ p = 0.12, \ SRMR = 0.04, \ NFI = 0.93, \ GFI = 0.96$). For both samples, the factor loading for each item on its corresponding construct was significant at the 0.05 level. More importantly, in both samples, the model fit of the hypothesized measurement model was significantly better than the fit of those models that did not distinguish between some (or all) of the five intended constructs (see Table 2). Furthermore, we conducted a test developed by Fornell and Larcker (1981) to establish the discriminant validity of the five scales. This test
Table 2. Fit-indexes for CFA, including perceived respect, inclusion of self in team, value of self for team, positive team identity and willingness to invest in team

<table>
<thead>
<tr>
<th>Battalion Alpha (n = 268)</th>
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</thead>
<tbody>
<tr>
<td>One factor</td>
<td>494.36***</td>
<td>77</td>
<td>0.70</td>
</tr>
<tr>
<td>Two factor</td>
<td>336.18***</td>
<td>76</td>
<td>0.79</td>
</tr>
<tr>
<td>Three factor</td>
<td>289.66***</td>
<td>74</td>
<td>0.82</td>
</tr>
<tr>
<td>Four factor</td>
<td>161.54***</td>
<td>71</td>
<td>0.90</td>
</tr>
<tr>
<td>Five factor</td>
<td>61.97</td>
<td>67</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Battalion Bravo (n = 227)

| One factor                         | 515.17*** | 77   | 0.58  | 0.72 | 0.12 |
| Two factor                         | 340.88*** | 76   | 0.72  | 0.81 | 0.09 |
| Three factor                       | 268.90*** | 74   | 0.78  | 0.84 | 0.09 |
| Four factor                        | 133.16**  | 71   | 0.89  | 0.92 | 0.05 |
| Five factor                        | 80.94     | 67   | 0.93  | 0.96 | 0.04 |

Notes: ***p < 0.001; **p < 0.01.

*Respect loads on one factor and all other items on a second factor.

†Respect loads on one factor, inclusion and value of self for team load on a second factor, and positive team identity and willingness to invest in team on a third factor.

‡Respect loads on one factor, inclusion and value of self for team load on a second factor, positive team identity and willingness to invest in team load on different factors.

§Respect, inclusion, value of self for team, positive team identity, and willingness to invest in the team load on different factors.

Descriptive statistics. For the individual self-report data provided by participants, the means, standard deviations, Cronbach’s alphas and zero-order Pearson correlations for Battalion Alpha and Battalion Bravo are presented in Table 3. Results showed significance at the 0.01 level for the predicted relations between the variables. Although overall substantial correlations between model variables were observed, we note that – given the relatively large size of the samples examined and the adequate scale reliabilities observed – intercorrelations in the range 0.4–0.5 (as observed here) have been found not to influence the statistical results of structural equation modelling (Grewal, Cote and Baumgartner, 2004).

Multi-sample modelling. To be able to assess the consistency of the measurement model across the samples of Battalion Alpha and Battalion Bravo, we conducted a multi-sample analysis (Bentler, 2008). First, we tested the measurement model for both samples simultaneously. The fit of this model was good (see Table 4). We then constrained correlations between constructs to be equal in both samples and subsequently constrained factor loadings to be equal in both samples. If the measurement model were inconsistent across the two samples, these constraints should lead to diminished model fit. The results show, however, that neither constraining correlations between constructs (Δχ² = 16.65, Δdf = 10, p = ns) nor constraining both factor loadings and correlations between constructs (Δχ² = 11.27, Δdf = 9, p = ns) leads to diminished model fit (see Table 4). Thus, the measurement model was consistent across both samples.

Common method bias analyses. Common method bias is a major concern in cross-sectional data and is a potential problem in this case. A first indicator that the observed relations cannot simply be ascribed to common method bias is that the constructs that were measured in this study show only modest intercorrelations (ranging from 0.23 to 0.56, see Table 3). In order to examine further whether common method bias may have influenced the predicted relationships between the hypothesized constructs, we followed different procedures to test this, as suggested by Podsakoff et al. (2003).

First, we performed Harman’s single-factor test (Harman, 1967; Podsakoff et al., 2003). This analysis tests whether one overarching factor (common method bias) provides sufficient explanation for the variance in the data. However, a single-factor model did not show an acceptable model fit for either of the two samples (see Table 2), which indicates that a single factor does not adequately account for the covariance among the items. This provides first evidence against bias from common method variance.

Second, we used a single-common-method approach (Podsakoff et al., 1990) to estimate the influence of common method bias in our samples. In this analysis, an overarching factor on which
all items load is added to the measurement model. If the measurement model does not change much, this suggests that common method bias does not significantly disturb the relations underlying the factor structure. When subjecting the confirmatory factor models – Battalion Alpha, Battalion Bravo and the multi-sample confirmatory factor model – to this analysis, all factor loadings of the items on their designated constructs remained significant. Furthermore, close inspection of the factor loadings of the common method factor showed that the factor loadings of several items were not significantly related to the common method factor, suggesting that the common method bias in our samples is not truly ‘common’.

Therefore, to test formally whether common method bias interfered with our measurement model (see Podsakoff et al., 2003), we added a common method factor to the most parsimonious measurement model: the multi-sample model with constrained factor loadings and factor intercorrelation (see above). We constrained all factor loadings of the common method factor to be equal; this avoids the problem of the common method factor not affecting item scores equally. Results show that, although model fit was adequate ($\chi^2_{151} = 168.88, p = 0.15$, SRMR = 0.06, NFI = 0.94, GFI = 0.95), adding this common method factor did not significantly improve the measurement model ($\Delta \chi^2 = 2.39, p < ns$). We conclude from these results that the relations observed between the hypothesized constructs cannot simply be ascribed to common method bias.

**Model testing**

*Structural model analysis.* To test the proposed two-path model empirically, we performed structural equation modelling on the two independent samples. In this hypothesized empirical model, perceived respect predicts perceived inclusion (Hypotheses 1 and 2), while inclusion is a predictor of positive team identity (Hypothesis 3), and value predicts willingness to invest in the team (Hypothesis 4; see Figure 1).
In both samples, we found a significant positive relationship between perceived respect and inclusion as predicted (Hypothesis 1), indicating that the more participants perceived to be respected by their fellow comrades, the more they felt included in the team. Similarly, in both samples we found a significant positive relation between perceived respect and value of self for the team (Hypothesis 2), indicating that the more team members think they are respected by their fellow comrades, the more they feel valued by the team. Furthermore, participants’ sense of inclusion in the team was positively related to reports of a positive team identity (Hypothesis 3). Sobel’s test confirmed that the indirect relation between respect and positive team identity through inclusion was significant in both samples (Battalion Alpha: \( t = 3.42, p < 0.01 \); Battalion Bravo: \( t = 2.12, p = 0.03 \)). In addition, results from both samples corroborated that the perceived value of self for the team was positively related to the willingness to invest in the team (Hypothesis 4). Sobel’s test confirmed that the indirect relation between respect and willingness to invest through value of self was significant in both samples (Battalion Alpha: \( t = 1.94, p = 0.05 \); Battalion Bravo: \( t = 2.86, p < 0.01 \)). In addition to these predicted indirect relations, we also observed reliable direct relations between perceived respect and positive team identity (in Battalion Alpha and Battalion Bravo), and between perceived respect and willingness to invest (only Battalion Alpha, not in Battalion Bravo). Thus, results supported a partial mediation model over a full mediation model (see Figure 2). This partial mediation model showed good empirical fit in both samples (see Table 5).

We then tested the two-path model against three alternative models, in order to show that it not only explains the data well, but is also the best fitting and most parsimonious model (see Table 5). In a first alternative model, we reversed all relations of the hypothesized model (reversed causal model). As indicated in Table 5, fit-indexes of this reversed model were not as good as the fit-indexes of the hypothesized empirical model in both samples. In addition, the lower AIC score (see Bentler and Wu, 2004) indicates better support for the hypothesized model than for the reversed causal order model.

Second, we tested a model in which we added the cross-relationships between (a) inclusion of self in the team and willingness to invest, and (b) value of self for the team and positive team identity (cross-relations model). We found that adding these cross-relationships to the hypothesized paths did not significantly improve fit of the model to the data in either sample (Battalion

Tests of significance were two-sided (listwise deletion): \textit{ns} = not significant \textit{*} \( p < .05 \) \textit{**} \( p < .01 \).
Since the hypothesized two-path model is more parsimonious than this alternative cross-relations model, this leads us to conclude that the hypothesized model should be preferred. Furthermore, the beta-weights of the cross-relations were non-significant, with the exception of the relation between inclusion and willingness to invest in the team in one of the two samples Battalion Alpha \( (b = 0.32, t = 2.06, p < 0.05) \). This further indicates that these cross-relationships do not substantially and reliably improve the model.

In a third, alternative model we examined whether perceived respect should be represented as an intervening process variable, mediating between the effects of perceived inclusion on positive team identity, on the one hand, and value on willingness to invest in the team, on the other (mediation model). Results show that the two-path model fits the data significantly better than this mediation model (Battalion Alpha: \( \Delta \chi^2 = 38.32, p < 0.01 \); Battalion Bravo: \( \Delta \chi^2 = 18.61, p < 0.1 \)).

In sum, we accept the hypothesized two-path model as providing the most appropriate representation of these data.

### Team-level analysis

We proceeded to conduct a team-level analysis. First, we calculated ICC\(_1\) scores, which indicate the proportion (0–1) of the observed variance in each construct that is accounted for at the team level (Chan, 1998). Given the present sample size and average number of team members, an ICC\(_1\) score of 0.06 or higher indicates significant team-level variance (Snijders and Bosker, 1999). This analysis revealed that inclusion of self in the team and positive team identity showed substantial team-level variance (0.12 and 0.13), while this was not the case for value of self for the team and willingness to invest (0.02 and 0.00). This reflects that inclusion and positive team identity speak to shared features of the team, while value and willingness to invest indicate individual contributions to the team. This should not be seen to imply that these latter variables cannot be considered at the aggregate level, as it still is of interest to examine, for instance, the average extent to which individuals are willing to invest in a particular team. Perceived respect fell in between, as it showed significant but moderate variance at the team level (0.09). To justify this aggregation empirically, we computed within-group agreement following James, Demaree and Wolf (1984, 1993). The inter-rater agreement \( r_{wg} \) of perceived respect, inclusion of self in the team, value of self for the team, positive team identity and willingness to invest in the team for all teams exceeded the generally accepted 0.70 cut-off for inter-rater agreement (0.95 \( \leq r_{wg} \leq 0.98 \)), providing strong grounds for aggregation.

Subsequently, we calculated mean scores for all hypothesized constructs and aggregated these to the team level, to be able to examine the predicted
relation between positive team identity and willingness to invest in the team, on the one hand, and action readiness (as rated by the team’s supervisor), on the other (Hypothesis 5). In this way, we derived a single team-level score for each of our constructs in all teams examined. At the team level, we then conducted path analysis to examine relations between the averaged constructs. We used the structure of the empirical model at the individual level (see Figure 2). We added paths to indicate that positive team identity and willingness to invest should predict the way the team is rated by its supervisor in this model. Because we had only a small sample of teams (n = 32), we allowed the analysis to be run with pairwise deletion of missing values. The fit measures of the hypothesized path model were satisfactory ($\chi^2 = 2.99$, $p = 0.81$, SRMR = 0.04, NFI = 0.96, GFI = 0.97, see Figure 3). Furthermore, all predicted relations between model variables were significant at the team level (see Figure 3), which further corroborates the validity of our reasoning. The only difference with the individual-level model is that, at the team level, the direct relationship between perceived respect and willingness to invest in the team was not significant. This offers evidence for full mediation of the effect of respect on willingness to invest in the team, through perceived value of the self, at the team level. More importantly, and as predicted (Hypothesis 5), the average willingness to invest in the team as well as the positive team identity reported by individual team members each revealed a significant positive relation to the way the action readiness of the team is rated by its supervisor. The model was able to predict 28% of the variance observed in supervisor ratings of the team’s action readiness.

**Discussion**

The main contribution of the present research is that it provides further insight into the psychological processes associated with perceived respect in work teams. Prior studies did not explicitly assess the sense of inclusion and value communicated by respect, or did not distinguish between them, which has resulted in conceptual confusion and theoretical debate (see also Huo and Binning, 2008; Spears et al., 2006; Van Quaquebeke, Henrich and Eckloff, 2007). With the present research, we contribute to this literature by developing and examining the notion that perceiving respect from team members has two separate functions which show distinct relations with team-relevant perceptions and behaviours. Extending previous theory and research (for overviews, see Sleebos, Ellemers and de Gilder, 2007; Smith, Tyler and Huo, 2003; Spears et al., 2006; Van Quaquebeke, Henrich and Eckloff, 2007), we propose a two-path model. Our analy-
sis distinguishes between inclusion as indicating the importance of the team for the self (relating to how the individual feels about the team) and value as indicating the importance of the self for the team (relating to what the individual is willing to do for the team). The present results corroborate this reasoning and support that the extent to which respect influences a sense of inclusion in the team primarily relates to a positive team identity, while the degree to which perceived respect is seen to communicate a sense of being valued is associated with the individual’s willingness to invest in the team. Importantly, we also established that both a positive team identity and the average willingness of individual team members to invest in the team relate to the way in which the team is evaluated by its supervisor. Thus, the present research not only corroborates our argument that inclusion and value should be considered as conceptually and empirically distinct psychological processes associated with perceived respect, but also documents the specific relevance of these functions of respect for different aspects of team functioning. Finally, the present data are consistent with our reasoning that the inclusion and value communicated by respect contribute to a team’s ability to perform well (as rated by the team’s supervisor) because of the relations with positive team identity and willingness to invest in the team.

Strengths and limitations

The present research was conducted among two independent samples of professional soldiers and their supervisors, who reported about their team in operation in a field context. This extends existing findings on the effects of team respect obtained with student samples in laboratory settings as well as individual-level field studies.

The constructs in this study were empirically interrelated, which makes it difficult to draw definitive conclusions in a single, cross-sectional study. However, the inclusion of two different samples allowed us to cross-validate the measurement model testing the distinction between different constructs, as well as the structural model, defining specific predicted relations between these constructs. We think this strengthens the reliability of the results. In fact, even though the correlational nature of the present research limits our ability to draw conclusions about causality, we included multiple data sources in the study, as we related team members’ self-reports to the way their team was rated by its supervisor. Furthermore, it is noteworthy that the current results converge with previous experimental findings which do allow for unambiguous interpretation of the direction of causality in examining the effects of intra-group respect (for an overview, see Sleebos, Ellemers and de Gilder, 2007).

We also tested the predicted model against other alternative models and found that these fit the data less well. Thus, even if some of the relations observed may be recursive, and mutually reinforce each other over time, the current data (and the multi-sample, multi-source approach we used) attest to the validity of our theoretical reasoning and support the proposed causal order of the interrelations observed. Taken together, the multi-sample, multi-source approach used enhances our confidence in the reliability of the current findings and the validity of the conclusions.

The professional identity of these participants and the military context in which these teams operated imply that our findings refer to real teams in settings where individual actions as well as the ability to rely on other team members can have life-and-death consequences. Although one might think this limits the generalizability of the current data, we see these characteristics of the present samples as indicating a unique opportunity to examine people working very closely together to do highly stressful and consequential work, sometimes under extreme circumstances; similar work conditions can be found in other professional groups that are not always easily accessible for psychological research, such as surgical teams, crisis management teams, police teams or fire fighters. Notably, we argue that the military context in which we examined this model actually implies a strong test of the hypotheses. Arguably, in the military, individual behaviours and work efforts are enforced in a strict hierarchical structure, as a result of which task contributions should rely less on subjective assessments of the work situation and individual motivation than in most other work settings. Nevertheless, the variables of interest examined here (i.e. positive team identity and individual willingness to invest in the team) not only related to the extent to which individual team members felt respected, included and valued, but were also reflected in the way the
supervisor rated the team’s action readiness to engage in combat. We think this speaks for the validity of this analysis.

Theoretical implications and future directions

The present research clarifies that there are different psychological processes through which intra-group respect connects individuals to the group (see also Sleebos, Ellemers and de Gilder, 2007). Specifically, in examining the psychological implications of intra-group respect, we build on recent developments in the social identity literature which distinguish between the self-definitional and self-investment aspects of identification (see Leach et al., 2008). We show that, whereas perceived inclusion (and the self-definitional concerns thus raised) relates to the way people think of their team, perceived value of the self (indicating self-investment concerns) relates primarily to individuals’ willingness to invest in their team.

These findings have several theoretical implications and raise a number of additional issues which deserve further examination in future research. A rather obvious conclusion we can draw based on the present research refers to the distinction between the value and inclusion implications of respect (De Cremer and Tyler, 2005). Even though both value and inclusion relate to perceived respect, on the one hand, and are eventually relevant to supervisor perceptions of action readiness, on the other, the data presented here remind us that this does not imply that they refer to a unified construct or that their further implications relate to the same psychological process. Indeed, depending on, for instance, the nature of the situation or the task at hand, either the value implications of respect (and the willingness of individuals to behaviourally invest in the team) may be crucial, or inclusion aspects (and the development of a positive team identity) can be key. For instance, as long as it is unclear which abilities or skills are needed for the task in a newly formed team, the first priority may be to provide individual team members with a sense of inclusion, and to develop a positive team identity. At later stages, or when clear expectations about the potential contributions of specific team members have developed, value aspects are likely to become more important. Further research could examine the validity of this reasoning.

In addition, there may be chronic or situational differences between individual team members in the degree to which they depend on this particular group to satisfy their need for belongingness (inclusion) or their need for status (value). For instance, ethnic minority group members, who see themselves as having a marginalized position in society, may be particularly keen to be fully accepted and included in their professional work group. By contrast, novices or junior team members may not expect or even care to be fully included in the group, as long as they are valued for the superior skills or novel information they contribute to the group. These and related issues can be addressed in future research.

Practical implications

Differentiating between the psychological processes associated with respect makes it possible to understand and predict what happens when interpersonal interactions in work teams primarily imply team inclusion, or rather convey the individual value afforded to team members. That is, if team managers initiate and support a team climate that prescribes fair and polite treatment as normative (Lind and Tyler, 1988; Tyler and Lind, 1992), this may help preserve feelings of inclusion and contribute to the development and maintenance of a positive team identity, even if there is a conflict of interest or a difference in opinion. However, if the main concern is to persuade team members to invest in the team, it might be more effective to identify and explicitly value the specific abilities or skills each individual may contribute to the team. Thus, depending on whether team morale and unity is primary or whether contributions and efforts of specific team members are needed, team leaders may be advised to focus on conveying feelings of inclusion or value in the ways they communicate respect to members of their team.

Second, whether or not task characteristics or situational restrictions allow individual workers to develop considerate relationships with other team members may be more or less problematic, depending on the type of effort and input that is required from individual team members. For instance, a drawback of frequent transfers (e.g. in temporary project teams) is that it makes it more difficult to develop a sense of inclusion or to experience a positive team identity. However, as
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long as successful completion of the team’s task requires a joint effort or relies on the combination of specific areas of expertise, the willingness to make the required contribution to the team may be secured by explicitly mentioning and valuing the potential input of individual team members.

**Conclusion**

Previous theory and research has not addressed the specific psychological implications of intragroup respect, and has treated inclusion and value as interchangeable aspects of a single unified construct. The present work contributes to existing insights by connecting prior work on respect to the social identity literature, which distinguishes between different aspects of social identification. We distinguish between two psychological processes associated with inclusion and value, even though both are fostered by perceived respect. Data from two samples corroborate our reasoning that perceived inclusion of the self in the team relates to the tendency to develop a positive team identity, while perceived value of the self for the team relates to the individual’s willingness to invest in the team. Both these implications of respect are relevant to the way the team’s performance is rated by its supervisor. Thus, this study sheds more light on the psychological processes through which perceived respect relates to relevant cognitions and behaviours in work teams, and elaborates on the theoretical and practical implications of doing this.

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