

RESEARCH ARTICLE

Negotiating inclusion: Revealing the dynamic interplay between individual and group inclusion goals

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Abstract

We aim to improve our understanding of how perceptions of social inclusion come about, unfold over time, and relate to individual and group outcomes. To do so, we draw on the MARGINI model, which offers a novel theoretical account of inclusion by delineating that inclusion is the result of a dynamic interplay between the individual's motivation to be included in the group (individual inclusion goal) and the group's willingness to include the individual (group inclusion goal). In a longitudinal field study (3 waves) following project teams ($n = 304$, divided into 46 teams) working on an eight-week consultancy project, we found that individual and group inclusion goals (a) mutually influenced each other over time and (b) in conjunction determined group members' individual outcomes as well as overall group performance. Together, this research sheds new light on the dynamics and effects of inclusion on individuals and groups.

KEYWORDS

field study, inclusion, MARGINI, project teams longitudinal

1 | INTRODUCTION

Over the past decade, the inclusion literature has grown rapidly. A well-established finding is that perceiving oneself to be socially included by others is vital for group members' wellbeing and determines to a large extent their commitment and contributions to the group (e.g., DeWall, Deckman, Pond, & Bonser, 2011; Jansen, Otten, Van der Zee, & Jans, 2014). Yet, much less is known about which members benefit most from being included by others, and, as a related matter, which members contribute most to their group. In addition, there is very little empirical research demonstrating how inclusion perceptions come about and unfold over time. That is, the majority of prior work focuses on the short-term effects of inclusion on individuals' wellbeing and motivation, but does not consider how inclusion develops over time.

In this article we aim to improve our understanding of the complexities and dynamics of inclusion by presenting a longitudinal field

study that extends previous inclusion research in several ways. Most importantly, inspired by a recently developed theoretical model (Ellemers & Jetten, 2013), our study differs from the bulk of prior inclusion research by not only focusing on the (perceived) *group's* willingness to include the individual (group inclusion goal), but by additionally taking into account the *individual's* wish to be included in the group (individual inclusion goal). With this addition, the main contribution of our research to the inclusion literature is twofold. First, we offer a more comprehensive understanding of how inclusion perceptions come about and unfold over time by modeling the dynamic interplay between individual and group inclusion goals across time. Second, we provide a more fine-grained account of the effects of inclusion than prior work by studying how individual and group inclusion goals separately and interactively determine individual and group outcomes.

In the remainder of this introduction, we discuss in more detail the (implicit) assumptions that have guided previous inclusion research

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and explain how these have limited our ability to fully understand the complexities and dynamics of inclusion. Next, we present the main tenets of a theoretical model that challenges these classic assumptions (Ellemers & Jetten, 2013) and derive a corresponding set of hypotheses. We then report how we tested these hypotheses in a longitudinal field study following project teams over time.

2 | CLASSIC ASSUMPTIONS ABOUT INCLUSION

Previous research has been guided by four, often implicit, assumptions about the nature of inclusion. We discuss these in turn.

2.1 | Assumption 1: the group determines inclusion perceptions

First, prior research is based on the notion that inclusion is primarily a function of the (perceived) group's willingness to include the individual in the group. That is, it is generally assumed that inclusion perceptions are rooted in how the group treats the individual (e.g., Leary & Baumeister, 2000). This means that the group, rather than the individual, is considered the primary actor in the process of inclusion (Jansen et al., 2014; Shore et al., 2011). This notion originates from the hypothesis that individuals are invariably motivated to be included in the groups of which they are a member (Baumeister & Leary, 1995). Consequently, previous research has generally disregarded people's own motivation to be included in groups and has instead only examined the motivation of the group to include or exclude individuals. In fact, this conceptualization is mirrored in the way inclusion is typically operationalized. In experiments, inclusion (or exclusion) is usually manipulated by group dynamics or actions that include (or exclude) the individual (e.g., the cyberball paradigm; DeWall, Deckman, Pond, & Bonser, 2011). Likewise, in survey studies, inclusion is often measured with items assuming primary agency by the group (e.g., "This group gives me the feeling I belong", taken from the Perceived Group Inclusion Scale developed by Jansen et al., 2014).

2.2 | Assumption 2: inclusion perceptions are one-dimensional

Second, as a direct consequence of considering the group as the primary actor, inclusion perceptions are considered to vary along a one-dimensional continuum, ranging from low to high. Individuals who are excluded by the group are considered *marginal* members, whereas individuals who are included by the group are seen as *core* members.

2.3 | Assumption 3: included members are better off than excluded members

Third, following from this one-dimensional conceptualization, previous research has assumed that included members experience more

positive wellbeing than excluded group members. This is in line with studies showing that, relative to included members, excluded members experience inferior self-regulation, lower self-esteem, and more distress (Baumeister, DeWall, Ciarocco, & Twenge, 2005; Jansen et al., 2014). In a similar vein, a lack of perceived inclusion has been found to predict more aggressive and less prosocial behavior (DeWall et al., 2011; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). However, other research, which we will consider in more detail below, suggests that being included by other group members does not always trigger a more favorable experience for the individual (e.g., Ethier & Deaux, 1994; Greenaway, Jetten, Ellemers, & van Bunderen, 2015).

2.4 | Assumption 4: groups benefit most from included members

Fourth, members who perceive they are included by the group are considered to be the most satisfied, loyal, and committed group members and are therefore expected to be most beneficial for the group. This notion is supported by work showing that included members are more likely than excluded members to conform to group norms (Lewin, 1948), more motivated to contribute to the group (Jackson & Saltzstein, 1958), and more likely to display in-group bias in the face of threats to the distinctiveness of their group (Ashford, Lee, & Bobko, 1989; Jetten, Spears, & Manstead, 1997). Here too, however, as we discuss in detail below, empirical evidence is mixed and opposite tendencies have been documented (e.g., Allan & Sienko, 1998; Jetten, Branscombe, Spears, & McKimmie, 2003).

3 | THE MARGINI MODEL

The seemingly inconsistent findings emerging from prior inclusion research demonstrate that the four assumptions that have guided much of our thinking on inclusion do not do justice to the way inclusion perceptions come about, unfold over time, and affect individuals and groups. The desire to offer an account for these mixed results prompted the development of a new approach: the MARGINI (*Marginality as Resulting from Group and Individual Negotiation about Inclusion*) model (Ellemers & Jetten, 2013). The model offers a more nuanced understanding of each of the abovementioned classic assumptions about inclusion.

3.1 | Inclusion as negotiation between the individual and the group

A central tenet of the MARGINI model is that inclusion is not only determined by the (perceived) willingness of the *group* to include the individual (group inclusion goal), but also depends on the *individual's* motivation to be included in the group (individual inclusion goal). While the MARGINI model does not dispute the notion that individuals infer their inclusionary status by closely monitoring how

other group members treat them, it also emphasizes that individuals can be active agents in the process of inclusion.

In fact, according to the model, inclusion perceptions are established in a recursive process, in which the group's willingness to include the individual affects the individual's desire (or reluctance) to be included in the group, and vice versa. This means that by communicating how much they themselves want to be included, individuals may actively shape the extent to which the group is motivated to include them. For example, when the group notices a member is not eager to be included, they may in turn either reject the member or increase their efforts to include the member in the hope of changing his/her motivation. Likewise, individuals may change their inclusion goal as a result of how they perceive to be treated by the group. Individuals may either withdraw from the group or increase their willingness and efforts to be included in response to experiencing a lack of appreciation from the group.

Thus, the MARGINI model explicitly considers inclusion as the result of a *dynamic* interplay between individual and group inclusion goals. The explicit consideration of the interaction between the goals of two parties resonates with theoretical models developed to understand the development of social inclusion of migrants over time, such as the concordance model of acculturation (Berry, 1997; Piontkowski, Rohmann, & Florack, 2002). Hence, the MARGINI model differs from previous inclusion models as it delineates that individuals and groups mutually influence each other across time to negotiate the inclusionary status of the individual. To examine the validity of this reasoning, we test our first hypothesis, which states:

Hypothesis 1 *Individual and group inclusion goals mutually influence each other over time.*

3.2 | Inclusion states

As a direct consequence of this approach, rather than seeing inclusion as a one-dimensional construct ranging from low (marginal) to high (core), the MARGINI model specifies four different inclusion states (see Figure 1). When group members have a strong desire to be included in the group (high individual inclusion goal), and this matches the intention of the group (high group inclusion goal), they are considered *socializing* members.¹ When both the individual and the group do not strive for further inclusion, these individuals are defined as *independent* members. When group members strive for inclusion, but the group does not reciprocate this, they are seen as *rejected* members. Finally, group members are considered *admired* members if they no longer wish to be included in the group, while the group persists in its desire to include them.

¹Note that the MARGINI model uses the term "marginals", whereas we use the more general term "members". This difference is due to the type of group under investigation. Whereas the MARGINI model primarily refers to situations in which a newcomer enters an existing group already containing other members (including core members), we study newly formed groups (project teams) in which all members enter the group at the same time. Because in this type of group there are no established or core group members, it is less evident what the term "marginals" refers to. This is why in our study we now refer to "members in different states of inclusion" instead of "marginal" members. Notwithstanding this difference, we do maintain that the main reasoning and tenets of the model still apply to our study.

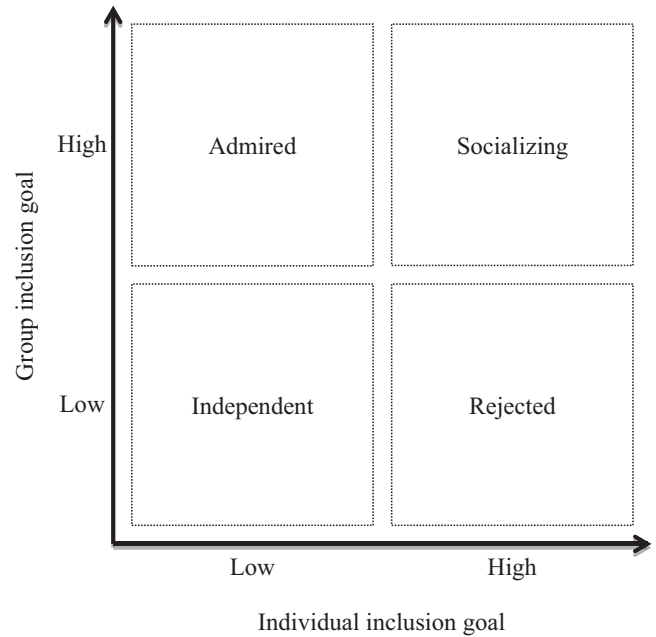


FIGURE 1 Inclusion states defined by individual and group inclusion goals based on the MARGINI model of Ellemers & Jetten (2013)

3.3 | Inclusion states and individual wellbeing and performance

The distinction made between these different inclusion states in the MARGINI model also implies that there is no straightforward way in which inclusion relates to indicators of individual wellbeing and performance. This can also clarify the mixed results reported in previous research. Indeed, while there is substantial evidence that perceiving oneself to be included by the group is vital for the wellbeing and performance of group members (e.g., DeWall et al., 2011), there is also research showing that being included in a particular group is more important for some than for others. In particular, people with a strong need to belong have been found to be most likely to benefit from group inclusion (Baumeister & Leary, 1995; Pickett, Gardner, & Knowles, 2004), while individuals who are included by the group against their own will were found to be more likely to behave aggressively (Greenaway et al., 2015). In addition, it has been argued that people who consider the group as central to their self-concept are most sensitive to whether or not they are included by the group (Leach et al., 2008). Likewise, individuals may not necessarily seek full inclusion in all the groups to which they technically belong. Research has shown that when people perceive themselves to be strongly included in one group (e.g., in a friendship group), they are happy to be less included in another group (e.g., a sports team; Ethier & Deaux, 1994). Thus, by taking account of the individuals' desire to be included in the group, the MARGINI model nuances the classic assumption guiding much previous work that being included by other group members always, and in a similar way, results in improved individual outcomes.

From the above reasoning we expect the following with regard to differences between group members' inclusion states and

indicators of wellbeing (such as positive mood and self-confidence) and performance (such as efficiency and creativity). First, we expect that members who perceive themselves to be included by the group (socializing and admired members) will report greater wellbeing and performance than those who perceive themselves to be excluded (rejected and independent members). In addition, we expect that, among those who perceive themselves to be included by the group, members who strive for inclusion themselves as well (socializing members) will report the greatest wellbeing and performance. Hence, our second hypothesis is twofold:

Hypothesis 2a *Socializing and admired members will report greater wellbeing and performance than rejected and independent members.*

Hypothesis 2b *Socializing members will report greater wellbeing and performance than admired members.*

3.4 | Inclusion states and group performance

In a similar vein, the MARGINI model questions the assumption that groups necessarily benefit most from members who perceive themselves to be included by the group. As previously mentioned, some studies have found that members who are included by the group are the most satisfied, loyal, and committed group members and are therefore most likely to contribute to the group (e.g., Jetten et al., 1997). Yet, there is also research indicating that sometimes members who are excluded by the group demonstrate as much loyalty and motivation as included members (Allan & Sienko, 1998; Jetten et al., 2003; Noel, Wann, & Branscombe, 1995; Schmitt & Branscombe, 2001).

By arguing that members in each inclusion state (socializing, admired, rejected and independent) can be of potential value to the group—albeit in different ways—the MARGINI model offers an account of these inconsistent findings. There are two parts to the argument. First, because individuals in different inclusion states differ in their individual and group inclusion goals, they are also likely to vary in their inclination to express dissenting or conforming perspectives, opinions, and viewpoints (De Dreu & West, 2001; Faddegon, Scheepers, & Ellemers, 2008; Nemeth, 1985; Rink & Ellemers, 2009). Second, groups need both dissent and conformity to achieve their goals. That is, on the one hand, groups need the free expression of dissent to avoid groupthink (Janis, 1982), to stimulate creative thinking (Nemeth, Brown, & Rogers, 2001), and to create alternative solutions to problems (De Dreu & West, 2001). On the other hand, groups require some expression of conformity to establish cohesion (Festinger, 1950), to maintain a positive group identity (Hutchison & Abrams, 2003), and to arrive at consensual decisions (Jetten & Hornsey, 2014). Thus, by pointing out the potential value and complementary contributions of members in all inclusion states, the MARGINI model calls into question the assumption that members who perceive themselves to be included by the group are necessarily the most valuable group members. More specifically, we infer from the model that diversity in members' inclusion states may benefit group performance. Hence, our third hypothesis is:

Hypothesis 3 *Group diversity in terms of members' inclusion states positively relates to group performance.*

4 | METHOD

To test our hypotheses we conducted a longitudinal field study following project teams over time. We specifically focused on project teams, because there is likely to be ample variation in inclusion goals in this type of group. Project teams are characterized by high levels of interdependence between members, are temporary in nature, and usually consist of people with different expertise (Guillaume, Brodbeck, & Riketta, 2012). As a result, members are likely to differ in their wish to be included and teams might be more willing to include some members than others.

4.1 | Participants and procedure

Participants were 304 Master degree students who were enrolled in an Organization Development course at Utrecht University ($M_{\text{age}} = 23.95$ years, $SD_{\text{age}} = 3.46$ years; 77% female). The data were collected in three course years. As part of their course, students worked in teams on an eight-week consultancy project. We chose to randomly assign participants to teams, instead of letting participants form teams themselves, to warrant sufficient variation in inclusion goals and to best model the way project teams are generally put together by management in organizations. Under supervision of a tutor, the teams had to analyze the primary process and culture of an external organization, formulate suggestions for improvement, present their findings, and reflect on their team's functioning. The grade the team received for their final report was determined by their tutor and made up 35% of their total grade for the course (an individual literature exam accounted for the remaining 65%). On average, students worked for 12 hr/week on the project. In total, we examined 46 project teams, with an average of 8.29 members per team ($SD = 0.91$ members). Students were not allowed to switch between teams. We asked participants to complete a five-minute paper-and-pencil questionnaire during weeks 2, 4, and 6 of their project ($N_{\text{week}2} = 273$; $N_{\text{week}4} = 257$; $N_{\text{week}6} = 250$, with 221 students who participated in all three waves), in which we asked them about their team experiences.

4.2 | Measures

Unless mentioned otherwise, all measures were administered with a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Because in the first course year the time for data collection was restricted, we mostly relied on single-item measures. To determine whether the single-item measures we used were reliable, for each of our constructs we collected multi-item measures that included these single-items in the second and third course year (see our results section). Further analyses (see below) confirmed the statistical reliability of the single-item measures as acceptable proxies for multi-item measures. Because we only used the single items for our analyses, we solely report here on the single items.

4.2.1 | Inclusion goals

Individual inclusion goals were measured by asking participants to indicate agreement with the item: "I would like to be included in this team". Group inclusion goals were measured with the item: "I think my team would like to include me" (adapted from Jansen et al., 2014). Note that we used individual's subjective perceptions of the group's willingness to include them. This most closely reflects the social reality that we wished to examine, as we were interested in finding out how people's estimates of the group's desire to include them interact with their own inclusion goals.

4.2.2 | Positive mood

We measured the extent to which students were in a positive mood while working in their team with the item: "I feel good within my team" (based on Diener, 1994).

4.2.3 | State self-confidence

State self-confidence was assessed with the item: "I work with a lot of self-confidence within my team" (adapted from Heatherton & Polivy, 1991).

4.2.4 | Perceived efficiency

The degree to which a team member perceived to work efficiently within his or her team was measured with the item: "I work efficiently within my team" (adapted from Thylefors, Persson, & Hellström, 2005).

4.2.5 | Perceived creativity

We measured perceived creativity with the item: "I am creative within my team". This item was adapted from the scale used by Zhou and George (2001).

4.2.6 | Team performance

Each project team handed in an advisory report to their tutor detailing their research questions, findings, and suggestions for improvement. The performance of each project was indicated by the grade they received from their tutor. Team reports were graded on a scale ranging from 1 (*lowest possible grade*) to 10 (*highest possible grade*), $M = 7.60$, $SD = 1.41$.

4.2.7 | Individual performance

We used the literature exam grade of students as a proxy for individual performance. We treated the average literature exam grade as a control variable in our analysis of group composition and performance. Table 1 displays the means and standard deviations of these measures at different time waves.

4.3 | Analyses

4.3.1 | Single-item reliabilities

To determine the reliabilities of the single-items we used, we used the *correction for attenuation formula* provided by Nunnally and Bernstein (1994). To this end, as indicated before, we administered multi-item scales for each of our constructs (ranging from 3 to 4 items per scale) in the second and third year of data collection. Each multi-item scale included the single item that we administered in our first year and which we used in our analyses to test our hypotheses. Next, we calculated (1) the reliabilities of the full scales (α 's were $>.79$) and (2) the item-total correlation for each of the single-item measures. Finally, we entered these parameters in the correction for attenuation formula to calculate the single-item reliabilities. Results (see Table 2) show that all of our single-item measures had good reliability (α 's $>.69$). Note that the only construct that we did not measure with a multi-item scale was state self-confidence. We chose to do so, because the single-item measure we used for this construct ("I work with a lot of self-confidence in my team") was comparable to a single-item measure ("I have high self-esteem") that has been extensively validated (Robins et al., 2001) and which has been shown to possess sufficient reliability (Postmes, Haslam, & Jans, 2013).

4.3.2 | Inclusion goals over time

To test Hypothesis 1, stating that individual and group inclusion goals mutually influence each other over time, we used Mplus (Muthén & Muthén, 1998). We estimated multilevel cross-lagged equation models (Farrell, 1994), which takes account of the nesting of individuals within groups (Hox, 2002). Such models estimate the effects of group inclusion goals on subsequent individual inclusion goals controlling for prior individual inclusion goals as well as the effects of individual inclusion goals on subsequent group inclusion goals controlling for prior group inclusion goals. As such, we were able to model the potential mutual influence between individual and group inclusion goals over time while controlling for both the stability in individual and group inclusion goals over time as well as their correlation within each wave.

TABLE 1 Means and standard deviations of study variables at different time waves

Variable	Time 1	Time 2	Time 3
	M (SD)	M (SD)	M (SD)
Individual inclusion goal	4.16 (0.60)	3.99 (0.62)	4.02 (0.64)
Group inclusion goal	3.85 (0.69)	3.87 (0.67)	3.85 (0.67)
Positive mood	4.02 (0.65)	3.96 (0.68)	3.94 (0.75)
State self-confidence	3.66 (0.73)	3.64 (0.70)	3.63 (0.74)
Perceived efficiency	3.74 (0.69)	3.67 (0.71)	3.76 (0.73)
Perceived creativity	3.44 (0.81)	3.51 (0.80)	3.45 (0.80)

TABLE 2 Estimation of single-item reliabilities

Construct (# items in full scale)	Time	Full scale α	Single-item-total r	Single-item α
Individual inclusion goal (4)	1	.79	.51	.33
	2	.83	.84	.85
	3	.88	.88	.88
	Average	.83	.74	.69
Group inclusion goal (4)	1	.83	.85	.86
	2	.86	.88	.89
	3	.89	.88	.88
	Average	.86	.87	.88
Efficiency (3)	1	.79	.71	.64
	2	.82	.78	.75
	3	.86	.80	.75
	Average	.82	.77	.72
Creativity (3)	1	.80	.88	.96
	2	.83	.87	.92
	3	.89	.92	.95
	Average	.84	.89	.95
Positive mood (3)	1	.92	.94	.96
	2	.88	.94	.99
	3	.93	.95	.96
	Average	.91	.94	.97

As is common in structural equation model selection, we first estimated a fully free model and then added restrictions to this model. A more parsimonious model is preferred over a less parsimonious model when the restrictions do not result in a significant decrease of model fit. Specifically, because we did not expect relations to differ across time intervals, we restricted the following relations to be equal across time intervals: (a) relations between individual and group inclusion goals within each wave; (b) relations between group inclusion goals across time; (c) relations between individual inclusion goals across time; (d) relations between individual inclusion goals and subsequent group inclusion goals one wave later; and (e) relations between group inclusion goals and subsequent individual inclusion goals one wave later. This restricted model showed excellent model fit, with CFI = 0.97 and TLI 0.96 exceeding the 0.95 criterion (Hu & Bentler, 1999), and with RMSEA = 0.05, which is below the 0.06 criterion (Browne & Cudeck, 1992). Moreover, this restricted model showed itself to be preferable over the fully free model since it is more parsimonious and did not show significantly lower model fit (Δ CFI = 0.016, which is below the 0.02 criterion, Δ TLI = 0.016 which is below the 0.05 criterion, and Δ RMSEA = 0.001 which is below the 0.015 criterion; Cheung & Rensvold, 2002; Little, 1997; Vandenberg & Lance, 2000).

4.3.3 | Differences across inclusion states

To test Hypotheses 2a (“socializing and admired members will report greater wellbeing and performance than rejected and independent members”) and 2b (“socializing members will report greater wellbeing

and performance than admired members”), we first categorized respondents into one of the four inclusion states at each time point. We did so by performing a *k*-means cluster analysis for each time wave.² In this analysis, cases are allocated to one of *k* clusters such that there is minimal within-cluster variation and maximal between-cluster variation in terms of one or more variables (Beauchaine & Beauchaine, 2002). As input parameters for our analysis, we defined four clusters (consistent with the MARGINI model) and entered the z-scores (relative to the team average) of participants’ individual and group inclusion goals as the defining variables for the clusters. Note that we chose to operationalize inclusion states based on z-scores relative to the team mean, rather than the overall mean of all respondents, following the reasoning that inclusion states are defined relative to other group members. Each of the four clusters that were formed was subsequently labeled as one of the inclusion states as defined by the MARGINI model. We did this by employing the average z-scores of individual and group inclusion goals per cluster. Using this methodology, each cluster could be unequivocally labeled as one of the four inclusion states. Table 3 displays the prevalence of each of the four inclusion states at different time points.

To test whether there were differences between group members in different inclusion states in terms of positive mood, state self-confidence, perceived efficiency, and perceived creativity, we estimated the relation between inclusion states (using three dummy variables) and each individual outcome measure with multilevel models with three levels (time points nested within individuals and individuals nested within teams). Because we wanted to test differences between all pairs of inclusion states, we estimated three multilevel models per outcome variable: one with socializing members as the reference category, one with independent members as the reference category, and one with rejected members as the reference category. We controlled for the level of inclusion goals within a team by adding the team average of individual and group inclusion goals as covariates in our models.

4.3.4 | Team composition and performance

To test Hypothesis 3, stating that group diversity in terms of members’ inclusion states positively relates to group performance, we conducted several preparatory analyses. First, we calculated the proportion of members in each inclusion state per team. We did this by dividing the number of members in each inclusion state by team size. This was done for each of the three time points.

Second, we calculated Blau’s index (Blau, 1977) to determine how diverse teams were in terms of members’ inclusion state. Blau’s index is a quantitative measure of variety within groups (Harrison

²To check for the robustness of our findings we operationalized inclusion states in two additional ways. As a first alternative, we categorized respondents into one of the four inclusion states based on a z-score split (relative to the team average) of individual and group inclusion goals. As a second alternative, we used the continuous measures of individual and group inclusion goals. The results, which can be found in the Appendix A, were almost fully replicated. For the sake of parsimony, we only report here the results based on the *k*-means cluster analysis.

TABLE 3 Prevalence of members in different inclusion states at different time points

Inclusion state	Time 1		Time 2		Time 3	
	n	%	n	%	n	%
Socializing	66	24.18	64	24.90	57	22.80
Independent	75	27.47	69	26.85	51	20.40
Rejected	65	23.81	69	26.85	62	24.80
Admired	67	24.54	55	21.40	80	32.00
Total	273	100.00	257	100.00	250	100.00

& Klein, 2007). Its computational formula is $1 - \sum p_k^2$, where p is the proportion of unit members in the k th category. Values of Blau's index can range from 0 to $(K - 1)/K$, with higher values indicating greater diversity. Because the MARGINI model defines four inclusion states, in this study K equals 4, and values of Blau's index can range from 0 to $((4-1)/4) = .75$.

Third, for each wave, we correlated both the proportions of members' inclusion states and Blau's index with the team's final performance indicated by the final report grade awarded to the team by their tutor. In this analysis, we controlled for the average literature exam grade per team, to take account of the possibility that some teams had more knowledge of the course literature than others.

Fourth, we calculated the average partial correlations between team composition and final team performance across the three time points. To do so, we followed a step-wise procedure for averaging correlation coefficients recommended by Silver and Dunlap (1987). This meant that, for each wave, we applied a Fisher's Z transformation to the partial correlation coefficients, because the sampling distribution of Pearson's pr is not normally distributed. Subsequently, we calculated both the means and the 95% confidence intervals of these transformed correlations over the three time waves and back-transformed these Fisher's z values to Pearson's pr values to facilitate interpretation.

4.3.5 | Power analyses

We performed two power analyses to check whether our study was sufficiently powered to perform our analyses. For the multilevel analyses, used to test Hypotheses 1, 2a, and 2b, the power analysis (with small to medium effect size $f = 0.25$, $\alpha = .05$, power = 0.80, number of inclusion states = 4, number of measurements = 3, correlation among repeated measures = 0.5) indicated a minimum

required sample of 124 level 1 observations. We had 3 time waves * 304 respondents per time wave = 912 level 1 observations (of which 663 were observed in each time wave).

For the team-level analysis, used to test Hypothesis 3, the power analysis (with small to medium effect size $f = 0.25$, $\alpha = .05$, power = .80) indicated a minimum required sample of 123 level 2 observations. We had 3 time waves * 46 level 2 observations per wave = 138 level 2 observations (all of which were observed in each time wave). Together, these calculations indicate that our study was sufficiently powered.

5 | RESULTS

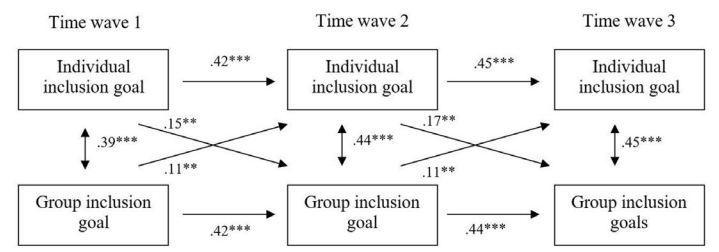
5.1 | Inclusion goals over time

First, we tested Hypothesis 1, which stated that individual and group inclusion goals mutually influence each other over time. Figure 2 provides a graphical representation of the estimated model. Results show significant cross-lagged paths from individual inclusion goals to group inclusion goals: the higher a member's initial individual inclusion goal, the higher the group's inclusion goal was two weeks later, controlling for initial group inclusion goal. Similarly, cross-lagged paths from group inclusion goals to own inclusion goals were significant: the higher initial group inclusion goal, the higher a member's individual inclusion goal was two weeks later, controlling for initial individual inclusion goal. Thus, confirming Hypothesis 1, individual and group inclusion goals mutually and positively influenced each other over time.

5.2 | Differences between inclusion states in individual wellbeing and performance

Next, we tested Hypotheses 2a ("socializing and admired members will report greater wellbeing and performance than rejected and

FIGURE 2 Cross-lagged multilevel structural equation model testing the relations between own and group inclusion goals over time. Standardized estimates *** $p < .001$, ** $p < .01$



Standardized estimates *** $p < .001$, ** $p < .01$

independent members”) and 2b (“socializing members will report greater wellbeing and performance than admired members”). Figure 3 outlines the positive mood, state self-confidence, perceived efficiency, and perceived creativity of members in each inclusion state across time. Table 4 provides an overview of all multilevel models. There were significant differences in wellbeing and performance between members in different inclusion states. Overall, results showed that socializing members experienced the most positive outcomes: they reported the highest levels of self-confidence and positive mood, and they perceived themselves as most efficient and as most creative. Independent members experienced the least positive outcomes: they reported the lowest levels of self-confidence, positive mood, efficacy, and creativity. Admired and rejected members fell in between socializing and independent members, with admired members being slightly better off in terms of perceived efficiency and creativity. Together, these findings support Hypotheses 2a and 2b and outline the importance of examining the combination of individual and group inclusion goals for individual outcomes.

5.3 | Team composition and performance

Finally, we tested Hypothesis 3, which stated that group diversity in terms of members’ inclusion states positively relates to group performance. Table 5 displays the partial correlations between indicators of team composition and team performance at each time point and averaged across time, controlled for average literature exam grade per team. Across time, team performance on average correlated positively with Blau’s index, $pr = .29$, 95% CI [0.13, 0.44]. This means that teams that were more diverse in term of members’ inclusion states performed better than teams that were less diverse, even when controlling for the aggregate knowledge of the course literature per team. This confirms Hypothesis 3. Separately, none of the inclusion states correlated significantly with team performance.

6 | DISCUSSION

The aim of the present research was to develop an improved understanding of how perceptions of inclusion in project teams come

about, unfold over time, and relate to individual and team outcomes. Using the MARGINI model, which offers a novel theoretical account of inclusion, we designed and conducted a longitudinal field study following project teams over time. Our results indicate (a) that individual and group inclusion goals mutually influence each other over time, (b) that members in different inclusion states (socializing, admired, rejected and independent members) differ in their affective and productive work outcomes, and (c) that teams perform better when their members are diverse in terms of their inclusion state.

6.1 | Implications and directions for future research

Our findings have important implications for existing inclusion research and give rise to several interesting future research questions.

First, we established that inclusion is not merely a function of the group’s (perceived) willingness to include the individual, but is also shaped by the individual’s motivation to be included in the group. We found that individual and group inclusion goals mutually influence each other over time, illustrating that inclusion is negotiated between the individual and the group. This means that individuals, just as groups, should be seen as active agents in the process of inclusion, and that it is therefore important to take account of individuals’ inclusion goals. As previous work (e.g., Ethier & Deaux, 1994) has found, there is considerable variation in people’s motivation to be included in groups. Moreover, this might be particularly true for people working in project teams, who are likely to belong to multiple teams at the same time and therefore to differ in their inclusion goals for each of these teams. To examine these dynamics, we suggest that future work should explicitly measure or manipulate the individuals’ motivation to be included in a group, in addition to assessing the group’s (perceived) willingness to include the individual.

Second, we nuanced the often-made assumption in previous work that members who feel included are uniformly better off than those who feel excluded. By considering members’ individual inclusion goals, we enriched the traditional distinction between those who are excluded by the group (marginals) and those who are included by the group (core members). Rather, we identified four

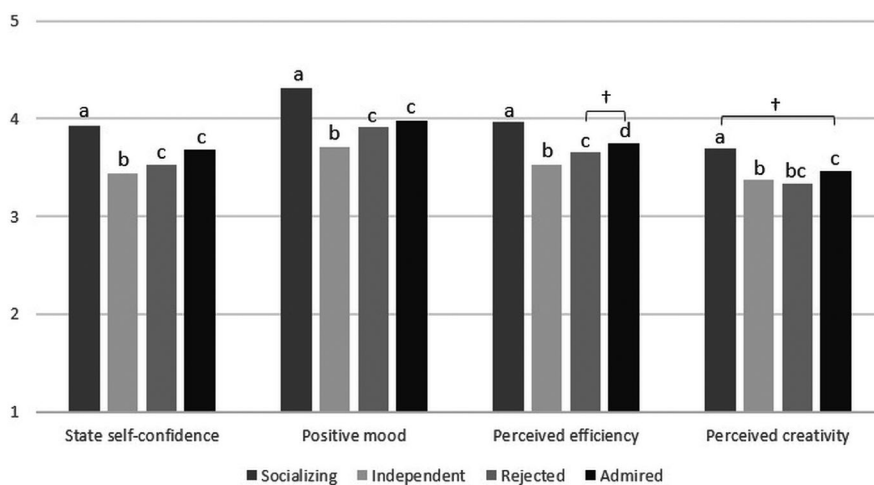


FIGURE 3 Differences between group members in different inclusion states in individual outcomes

Note: Differences between inclusion states tested with multilevel models (time nested in individuals nested in teams) for each outcome separately. Different letters indicate significant differences ($p < .05$) between inclusion states for that outcome. The symbol † indicates the difference has a significance value between $p = .05$ and $p = .10$

TABLE 4 Results of three-level multilevel models testing differences between inclusion states in individual outcomes

	State self-confidence	Positive mood	Perceived efficiency	Perceived creativity
Intercept	2.65 (0.36) ^{***}	3.36 (0.36) ^{***}	1.76 (0.34) ^{***}	2.11 (0.37) ^{***}
Team average individual inclusion goal	-0.23 (0.08) ^{**}	-0.23 (0.08) ^{**}	0.02 (0.08)	0.10 (0.09)
Team average group inclusion goal	0.34 (0.08) ^{***}	0.34 (0.08) ^{***}	0.32 (0.08) ^{***}	0.34 (0.09) ^{***}
Socializing (dummy)	-0.38 (0.07) ^{***}	-0.58 (0.06) ^{***}	-0.41 (0.07) ^{***}	-0.22 (0.07) ^{**}
Independent (dummy)	0.38 (0.07) ^{***}	0.58 (0.06) ^{***}	0.41 (0.07) ^{***}	0.27 (0.08) ^{***}
Rejected (dummy)	-0.14 (0.06) [*]	0.31 (0.06) ^{***}	0.26 (0.07) ^{***}	0.22 (0.07) ^{***}
Admired (dummy)	-0.21 (0.06) ^{***}	-0.07 (0.06) ^a	-0.33 (0.06) ^{***}	-0.15 (0.07) ^a
% Variance at person level	47.00 ^{***}	29.96 ^{***}	29.05 ^{***}	48.67 ^{***}
% Variance at team level	1.21	0	0	0

Dummy without estimate in a model is the reference category in that model; a significant effect for a certain inclusion state indicates that this state differs significantly from the reference category.

^aTest statistic used to test Hypothesis 2a.

^bTest statistic used to test Hypothesis 2b.

****p* < .001; ***p* < .01; **p* < .05; [†]*p* < .10 (*B(SE)* estimates).

Indicator of team composition	Partial correlation with team performance [95% CI]			
	Time 1	Time 2	Time 3	Average across time ^a
Proportion socializing	.03 [-0.27, 0.33]	.18 [-0.12, 0.45]	.22 [-0.08, 0.51]	.14 [-0.04, 0.31]
Proportion independent	-.18 [-0.48, 0.12]	-.12 [-0.41, 0.17]	.01 [-0.29, 0.31]	-.10 [-0.27, 0.08]
Proportion rejected	.26 [-0.04, 0.56]	-.05 [-0.33, 0.24]	.10 [-0.20, 0.41]	.11 [-0.07, 0.28]
Proportion admired	-.08 [-0.39, 0.22]	.02 [-0.27, 0.30]	-.20 [-0.49, 0.10]	-.09 [-0.26, 0.09]
Blau's index	.25 [-0.05, 0.54]	.14 [-0.16, 0.41]	.48 [0.21, 0.74]	.30 [0.12, 0.45]

^aThe average partial correlations across time are back-transformed Pearson's *r* values.

inclusion states and found that socializing members (high individual inclusion goal/high group inclusion goal) consistently reported higher wellbeing and performance than the other three types of members, including admired members (low individual inclusion goal/high group inclusion goal). While the difference between socializing members on the one hand and independent and rejected members on the other hand would also have appeared when only group inclusion goals were examined (as most previous research has done), the difference between socializing and admired members has not been established in prior research. Thus, we conclude that considering both group and individual goals—and their combination—provides more a nuanced image of the relationship between inclusion and individual outcomes.

Third, our findings challenge the commonly held assumption that teams benefit most from members who perceive themselves to be included by the team. We found that the presence of socializing members (high individual inclusion goals/high group inclusion goal) was not positively related to actual team performance as determined by the final grade awarded to the team by their tutor. This is remarkable, considering that socializing members reported the highest levels of subjective wellbeing and performance. Thus, it appears that socializing members may feel good about their contribution to the group, even if their presence does not actually benefit the team more than the presence of other members. Together, these findings once again indicate the importance of distinguishing between team members based on their group *and* individual inclusion goals, and demonstrate that groups do not necessarily profit most from members who are included by the group.

Finally, we found that teams that were diverse in terms of members' inclusion state performed better than teams that had a more homogeneous composition. As mentioned in the introduction, a possible explanation for this pattern of results is that members in different inclusion states differ in their inclination to express dissenting and conforming perspectives, opinions, and viewpoints, and that teams need both dissent and conformity to achieve their goals. This would explain why diversity in members' inclusion states benefits the team's performance. Future research might explicitly test

TABLE 5 Partial correlations between indicators of team composition and team performance at each time point and averaged across time controlled for average literature exam grade per team

whether people in different inclusion states also display distinct patterns in expressing dissent and conformity. Moreover, this finding can contribute to research investigating the relationship between team diversity and performance. While prior diversity research has considered a wide range of attributes to examine the effect of diversity on team performance (Jackson & Joshi, 2011), our study suggests that diversity in terms of members' inclusion state might be an important, yet so far overlooked, diversity dimension.

6.2 | Strengths and limitations

A notable strength of the present research is our research design. We collected data at three different time points spread out across eight weeks, allowing us to examine how inclusion states develop over time, and to examine causal relations between our measures. In addition, by using z-scores of inclusion goals (relative to the team mean) to classify group members into four different inclusion states, we combined self- and other-reported data and thereby reduced the likelihood of common method bias (Podsakoff et al., 2003). Furthermore, we were able to combine self-reported measures of work outcomes with objective indicators of individual and team performance. Having such a multi-source dataset allowed us to draw more unequivocal conclusions about the relationships between our measures.

As we opted for this strong research design, the use of multiple measures repeated over time prompted us to rely on single items to measure most of our concepts. A potential limitation of single-item measures is that they are less reliable than multi-item scales (Diamantopoulos, Sarstedt, Fuchs, Wilczynski, & Kaiser, 2012). Our additional data with multi-item scales allowed us to determine to what extent this was the case for our measures. Our results indicated that, across time, all items were sufficiently reliable. This finding resonates with the assertion that single-item measures are not necessarily worse than multi-item measures (Gardner, Cummings, Dunham, & Pierce, 1998), especially when assessing relatively straightforward constructs or end states such as overall wellbeing (Sackett & Larson 1990). Moreover, we believe that the use of single

items also represents a strength, as it contributed to the low attrition rates in our study.

We chose to use individuals' own estimates to assess (perceived) group inclusion goals. To some extent this also reflects the social reality that we wished to examine, as we were interested in finding out how people's estimates of the group's desire to include them interact with their own inclusion goals. Thus, we think it is valid to examine how the way individuals experience or subjectively perceive group goals affects their wellbeing and performance in the group. Nevertheless, future research might additionally investigate accuracy versus misperception of the group's desire to include specific individuals and how this affects group processes. Different types of methodologies should help provide further insight into these issues, for instance by adopting a social network analysis.

Another issue that could be addressed in future research concerns the order and proximity of measures of individual and group inclusion goals in the questionnaire. We deliberately presented individual and group inclusion goals immediately after each other in our questionnaires, because we wanted our participants to reflect on the fact that these are two different concepts that may or may not correspond. Yet another option would be to place these measures further apart, and/or to counterbalance the order of the two measures across time waves and/or between participants. This can help specify any order effects and would make it possible to compare whether results are different when subjective ratings are anchored on initial estimates of individual or group inclusion goals.

7 | CONCLUDING REMARKS

In this research we provided empirical evidence that questions the implicit assumptions that have guided much previous inclusion research. We demonstrated that inclusion is not only determined by the groups' willingness to include an individual, but also depends on the individual's motivation to be included in the group. In addition, we showed that it is not necessarily most beneficial for the group to solely have socializing members (i.e., those who seek and perceive highest inclusion) in their midst. Instead, there seemed to be a discrepancy between the subjective impressions of members' contributions to the group on the one hand, and the actual likelihood that the group performed well due to their presence on the other hand. Together, the results from this research shed new light on the complexities and dynamics of inclusion.

CONFLICT OF INTEREST

The authors declare that there are no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

ETHICAL APPROVAL

This study was approved by the ethics committee of the Faculty of Social Sciences of Utrecht University and was conducted in full

compliance with ethical standards. We archived electronic copies of the anonymized raw data, coding information, and all materials in DataverseNL, a secure public data repository (<https://hdl.handle.net/10411/RYLEAB>).

TRANSPARENCY STATEMENT

We archived electronic copies of the anonymized raw data, coding information, and all materials in DataverseNL, a secure public data repository (<https://hdl.handle.net/10411/RYLEAB>).

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APPENDIX A

RESULTS WITH ALTERNATIVE OPERATIONALIZATIONS OF INCLUSION STATES

To test Hypotheses 2a, 2b, and 3 we operationalized inclusion states in our manuscript by performing a *k*-means cluster analysis. To determine the robustness of our findings, we here present the results based on two alternative operationalizations of inclusion states.

ALTERNATIVE 1: Z-SCORE SPLIT

As a first alternative, we categorized respondents into inclusion states based on a z-score split of individual and group inclusion goals. This meant that we classified respondents as *socializing* members when both their individual inclusion goal and their group inclusion goal were higher than average inclusion goals in the team. Participants were coded as *independent* members when both their individual and group inclusion goal was lower than average inclusion goals in the team. *Rejected* members were defined as those whose

individual inclusion goal was higher than the average individual inclusion goal in the team while their group inclusion goal was lower than the average group inclusion goal in the team. Finally, we coded participants as *admired* members when their individual inclusion was lower than the average individual inclusion goal in the team and their group inclusion goal was higher than the average group inclusion goal in the team.

DIFFERENCE BETWEEN INCLUSION STATES

Similar to the analysis in our manuscript, we tested Hypotheses 2a (“socializing and admired members will report greater wellbeing and performance than rejected and independent members”) and 2b (“socializing members will report greater wellbeing and performance than admired members”) by using multilevel regression analyses controlling for team averages in individual and group inclusion goals. Figure A1 displays the results.

Overall, similar to the results based on the *k*-means cluster analysis, results showed that socializing members experienced the most positive outcomes: they reported the highest level of self-confidence and positive mood, and they perceived themselves as most efficient and as most creative. Also similar to our prior analysis, admired members came second. They experienced similar levels of self-confidence in the team as socializing members but reported lower positive mood, efficiency, and creativity than socializing members. In addition, their positive mood was higher than that of independent and rejected members. Overall, independent and rejected members together reported the lowest individual outcomes. Yet, independent marginal indicated even lower positive mood than rejected members. Together, in line with our findings reported in our manuscript, these results support Hypotheses 2a and 2b.

GROUP COMPOSITION AND PERFORMANCE

To test Hypothesis 3, stating that group diversity in terms of members' inclusion states positively relates to group performance, we performed the same analyses as reported in the manuscript (see Table A1). The results were fully in line with those reported in the manuscript. Across time, none of the inclusion states correlated significantly with team performance separately. In addition, across time, Blau's index correlated positively and significantly with team performance. This supports Hypothesis 3.

ALTERNATIVE 2: CONTINUOUS MEASURES

As a second alternative, instead of categorizing respondents into one of the four inclusion states, we used the continuous measures in our analyses. Because Hypotheses 2a, 2b, and 3 all assumed that individuals are categorized into inclusion states we (1) did not formally test these hypotheses using this alternative operationalization and (2) only report on the difference between members' inclusion states in individual outcomes.

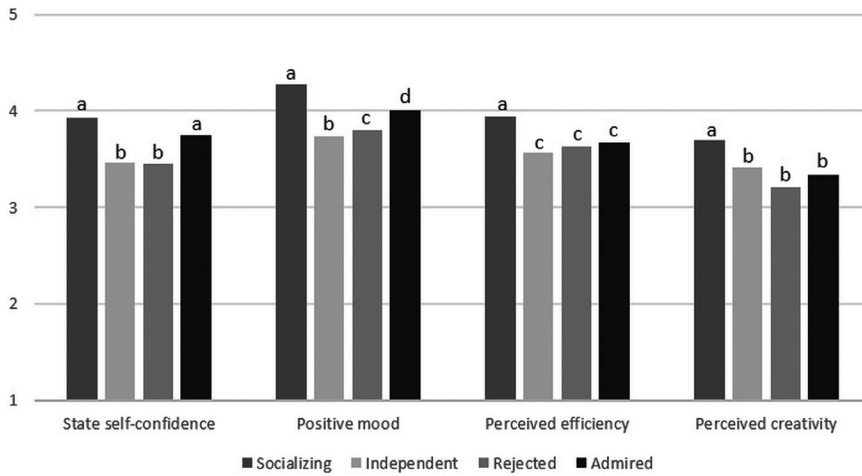


FIGURE A1 Differences between group members in different inclusion states in individual outcomes (categorization based on z-score split)
 Note: Differences between inclusion states tested with multilevel models (time nested in individuals nested in teams) for each outcome separately. Different letters indicate significant differences ($p < .05$) between inclusion states for that outcome

DIFFERENCE BETWEEN INCLUSION STATES

We conducted multilevel regression analyses to estimate the main and interactive effects of (z-scored) individual and group inclusion goals on work outcomes across time while controlling for team averages of individual and group inclusion goals (see Table A2). Results show that group inclusion goals were a significant and positive predictor of all outcomes measures. Individual inclusion goals positively predicted positive mood and perceived efficiency, but did not predict state-self-confidence and perceived creativity. Group and individual inclusion goals interacted marginally for

state self-confidence and significantly for positive mood. An exploration of these interactions, looking into the effect of group inclusion goals for low and high individual inclusion goals separately (z-scores below and above 0), indicated that group inclusion goals had a stronger positive relation with self-confidence and with positive mood for group members with low (compared to high) individual inclusion goals. Together, these results in large part corroborate our finding in the manuscript that group inclusion goals and individual inclusion goals in conjunction determine members' outcomes.

TABLE A1 Partial correlations between indicators of team composition and team performance at each time point and averaged across time controlled for average literature exam grade per team (categorization based on z-score split)

Indicator of team composition	Partial correlation with team performance [95% CI]			
	Time 1	Time 2	Time 3	Average across time ^a
Proportion socializing	-.10 [-0.32, 0.17]	.15 [-0.12, 0.31]	-.02 [-0.25, 0.22]	.01 [-0.22, 0.23]
Proportion independent	-.24 [-0.43, 0.07]	.13 [-0.13, 0.31]	-.11 [-0.30, 0.16]	-.08 [-0.30, 0.16]
Proportion rejected	.18 [-0.13, 0.40]	-.15 [-0.31, 0.11]	-.04 [-0.26, 0.20]	.00 [-0.23, 0.22]
Proportion admired	.22 [-0.08, 0.39]	-.15 [-0.31, 0.12]	-.04 [-0.26, 0.20]	.01 [-0.21, 0.24]
Blau's index	.13 [-0.15, 0.34]	.16 [-0.11, 0.33]	.42 [0.20, 0.64]	.24 [0.02, 0.44]

^aThe average partial correlations across time are back-transformed Pearson's *r* values.

TABLE A2 Results of three-level multilevel models predicting individual outcomes using continuous measures of inclusion goals

	State self-confidence	Positive mood	Perceived efficiency	Perceived creativity
Intercept	3.27 (0.33)***	0.93 (0.26)***	2.47 (0.31)***	1.80 (0.35)***
Team average individual inclusion goal	-0.23 (0.08)**	0.23 (0.07)**	0.01 (0.08)	0.08 (0.09)
Team average group inclusion goal	0.35 (0.08)***	0.55 (0.07)***	0.32 (0.08)***	0.34 (0.08)***
Individual inclusion goal (z-score)	0.03 (0.03)	0.13 (0.03)***	0.10 (0.03)**	0.04 (0.03)
Group inclusion goal (z-score)	0.18 (0.03)***	0.20 (0.03)***	0.12 (0.03)***	0.12 (0.03)***
Individual × Group inclusion goal (z-scores)	-0.05 (0.03)†	-0.06 (0.03)†	-0.004 (0.03)	0.02 (0.03)
% Variance at person level	47.6***	28.9***	29.4***	48.9***
% Variance at team level	1.7	0	0	0

*** $p < .001$; ** $p < .01$; * $p < .05$; † $p < .10$ (B(SE) estimates).