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When Inclusion Becomes a Necessity: Distinguishing Assimilation from Inclusion in Optimal Distinctiveness Theory

Master's Thesis

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Abstract

The recently-developed Inclusion Identification Model (IIM) suggests that group identification mediates the positive effect of inclusion on well-being. The IIM seeks to define inclusion based on Optimal Distinctiveness Theory (ODT), which argues that the experience of inclusion is attained from two satisfied needs: the experience of belonging, and the experience of simultaneous appreciation as an authentically unique individual. However, recent research and the first study presented in this paper indicate that distinguishing these components may be operationally challenging. I propose that this may be because people need to experience the *necessity* of inclusion, such that both the satisfaction of belonging and authentic uniqueness needs are practically relevant. Based on this rationale, I present a second study examining ODT and the IIM when inclusion mattered. Limited by methodological constraints providing only indicative findings, I discuss the two-dimensional conceptualization of inclusion and the inclusion necessity argument in light of the results.

Keywords: inclusion, identity, optimal distinctiveness, teams, well-being

[149 words]

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In 2010, thirty-three Chilean miners survived sixty-nine days trapped 700 meters underground. Without daylight and with limited food, the *compañeros* organized a democratic social support system while being completely isolated for seventeen days. Strikingly, both a sense of belonging (Franklin, 2011; e.g., pp. 96–97, 106–107) and appreciation of individuality (e.g., pp. 64–67, 145) seemed conducive to survival. From an optimal distinctiveness perspective (Brewer, 1991), these two components, a feeling of belonging and a feeling of authentic uniqueness, are theorized to compose the experience of inclusion.

Whereas inclusion is generally beneficial for well-being (e.g., Stainback, Stainback, East, & Sapon-Shevin, 1994), the recently-developed Inclusion Identification Model (IIM; Adams, Meyers, Sekaja & Versteegen, in prep.) suggests that this benefit is due to a heightened identification with both the superordinate (associated with belonging) and the subordinate (associated with authentic uniqueness) group. Consequently, the experience of belonging and authentic uniqueness might have helped the compañeros to maintain well-being by increasing identification with the superordinate group of miners, as well as with the subgroup in which they felt authentically unique.

Problematically, while there is correlational support for the IIM (Adams et al., in prep.), there is little causal evidence to distinguish the two inclusion components. In this paper, I first test the premise of optimal distinctiveness; the latter has inspired extensive research in various fields (e.g., self-representations (Brewer & Gardner, 1996); culture (Triandis, 2018); organizations (Zuckerman, 2016)), but, to my knowledge, never been scrutinized in itself. Second, I evaluate one argument explaining why the manipulation of the two distinct dimensions was insufficient; the possibility that they were irrelevant to the participants. After reviewing the literature underlying optimal distinctiveness, as well as its theorized effect on group identification and well-being, I will present two studies. In Study 1,

I test optimal distinctiveness and the IIM (Adams et al., in prep.) in a longitudinal study. In Study 2, I flesh out and test an argument for why the two-dimensional conceptualization may require both dimensions to be relevant.

Optimal Distinctiveness, Identification, and Well-Being

Optimal Distinctiveness Theory (ODT; Brewer, 1991; Shore et al., 2011) proposes that the satisfaction of an individual's need to assimilate and differentiate constitutes inclusion (see Figure 1). An individual thus has to find both "validation and similarity" with others, as well as "uniqueness and individuation" (Brewer, 1991, p. 477) to feel included. Practically, this means that an individual will not feel included just by belonging to others (henceforth: *simple inclusion*). Only if she simultaneously feels respected and appreciated for what is making her different from the others will she feel included (*full inclusion*).

Being fundamentally different from understanding inclusion as simply not being excluded (such as Williams et al., 2002), the two-dimensional conceptualization offers the opportunity to explain why satisfying belonging, as well as authentic uniqueness[1], matters to the individual. The social identity approach provides the most central explanation, suggesting that feeling included gives an individual an understanding of who she is by a.) identifying with her in-group members (Social Identity Theory, SIT; Tajfel & Turner, 1986) and b.) differentiating these in-groups from out-group members (Self-Categorization Theory, SCT; Turner, Hogg, Oakes, Reich, & Wetherell, 1987). It is the interplay between belonging to one group and being separate from other groups that allow people to make sense of their social selves (cf. Brewer, 1991). The four cells resulting from the two dimensions suggested under ODT (Brewer, 1991; Shore et al., 2011) describe an individual's status of belonging and authentic uniqueness and thus cater an individual's motivation to "to seek positive social

[1] I use the term *authentic uniqueness* to maintain Brewer's (1991) original terminology, which labeled the second dimension besides belonging *uniqueness*. However, recognizing that an individual does not necessarily need to be unique (i.e., unprecedented) but respected for being different from others (i.e., *authentic*; Jansen, Otten, van der Zee, & Jans, 2014), the term authentic uniqueness means that an individual differentiates from others; whether this is genuinely unique or just authentic.

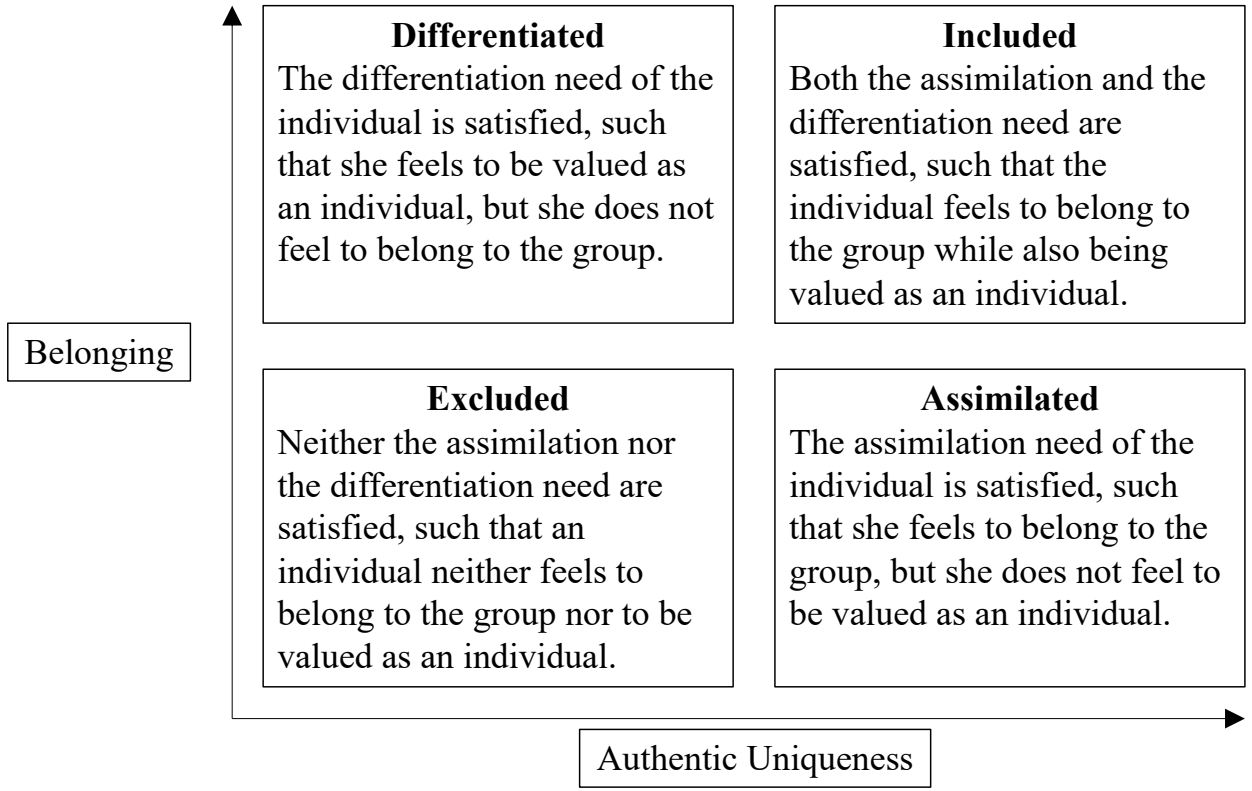

Figure 1. Inclusion Framework following ODT (Brewer, 1991), and adaptations by Shore et al., (2011), Jansen et al., 2014), and Adams et al. (in prep).

identity by comparing in-groups favorably with out-groups" (Turner & Oakes, 1986, p. 240, cf. Shore et al., 2011). If ODT holds, it explains the effects of exclusion and inclusion through the degree to which one identifies with others, because belonging and authentic uniqueness form the basis on which we identify with in-group and disidentify from out-group members.

Indeed, at least two models describe how the effect of exclusion, which diminishes well-being (e.g., Baumeister & Tice, 1990; Cooley, 1956; Frable, 1993; Gonsalkorale & Williams, 2007) can be buffered through one's group identification. First, research on the Rejection-Identification Model (RIM; Branscombe, Schmitt, & Harvey, 1999) found that minorities can maintain well-being after prejudice by strengthening identification with the in-group. Second, the Rejection-Disidentification Model (RDIM; Jasinskaja-Lahti, Liebkind, & Solheim, 2009) proposed that in addition to in-group identification, an individual could relativize the importance of an excluding superordinate group by disidentifying from it. Dubiously, there is no consistent support for either the RIM or the RDIM (cf. Bobowik, Martinovic, Basabe, Barstiest, & Wachter, 2017). Moreover, and along with alternative explanations (e.g., cf. Berry, 2006, 2017; Haslam, Jetten, Postmes, & Haslam, 2009; Jetten, Haslam, & Haslam, 2012; Stephan & Stephan, 2013), the exclusion perspective is insufficient as it neglects the benefits of inclusion advanced in SIT (see Hornsey, 2008, for an overview).

Adams and colleagues (in prep.) aim to account for this limitation. The IIM argues that the positive effect of inclusion on well-being is mediated through group identification, which is evoked by the two-dimensional nature of inclusion. Two correlational studies partially supported the model, such that inclusion (measured by a two-dimensional scale; Salib, 2014) was associated with stronger superordinate (but not consistently with subordinate) identification across different samples, which was then related to higher well-being. The IIM thus attempts to look at the positive side of the coin by looking at why people feel well after being included actively in the first place instead of how harm can be weakened after feeling excluded. Nevertheless, it is not only relevant to underpin the IIM with further evidence,

Versteegen and Adams' (in prep.) recent difficulties in manipulating the two dimensions call for more rigorous testing of the theory's validity, as well as conditions in which both dimensions may become pertinent.

The Present Research

As mentioned above, this paper has two objectives. First, it compares a one-dimensional conceptualization (i.e., simple inclusion) based on belonging only to a two-dimensional conceptualization (i.e., full inclusion) that additionally entails authentic uniqueness. This, to my knowledge, is the first attempt to examine the internal validity of the ODT (Brewer, 1991; Shore et al., 2011) framework directly. Second, it tests the argument introduced below that full inclusion, compared to simple inclusion, only predicts identities and well-being better if full inclusion is a necessity. The paper thus has two primary contributions. First, the inclusion necessity argument refines the theoretical foundation of inclusion and thus allows understanding better why many inclusion interventions have limited success[2] (e.g., Aboud et al., 2012; Gardiner, Geldenhuys, & Gott, 2018; Kelly, 2011). Second, the accentuation of inclusion necessity takes up a recent advancement made by Jansen and colleagues (2019), who call for research examining "the individuals' motivation to be included in a group, in addition to assessing the group's (perceived) willingness to include the individual" (p. 8). Until now, individuals and their respective groups striving for inclusion have been assumed to be the default. However, Ellemers and Jetten (2013) described why individuals (and their groups) may prefer remaining peripheral within a (larger) group and how, if the inclusion needs of the two parties are incoherent, they can exert influence to change their role within the including group.

This paper examines the additional value of full compared to simple inclusion in two studies to examine the research question of whether inclusion is sufficiently described by

[2] Undeniably, the single inclusion components may already have beneficial effects. Mere belonging, for example, has a positive effect on achievement motivation (Walton, Cohen, Cwir, & Spencer, 2012). However, this might not yet be inclusion.

belonging only or if it additionally entails authentic uniqueness. Embedding this question in the IIM (Adams et al., in prep.), both designs tested identities as mediators and well-being as outcomes. Study 1 used longitudinal data to compare the long-term effects of full vs. simple inclusion on identity and well-being in a general population. Building upon that, I examine the second research question, which asks whether the superiority of full over simple inclusion is only valid when inclusion becomes a necessity. I tested this argument in Study 2, where I experimentally manipulated inclusion and the necessity to be included.

Study 1

The first study used existing data from four measurement points in the Longitudinal Internet Studies for the Social Sciences (LISS) panel (CentERdata, Tilburg, The Netherlands; Scherpenzeel & Das, 2010) to examine the first research question. I hypothesized as follows:

- *Hypothesis 1a + 1b*: In line with the IIM, I hypothesized both identities to fully mediate the effect of belonging and authentic uniqueness at t1 on life satisfaction at t4 (see Figure 2).
- *Hypothesis 2*: Based on the two-dimensional conceptualization of inclusion suggested in ODT, I hypothesized that a mediational model with two predictors (belonging + authentic uniqueness) fits the data better than a model with one predictor (belonging only).

Methods

Design and Procedure. Following ethical clearance by the Tilburg University Ethics Review Board (ERB), I conducted a pre-registered study using the LISS immigrant panel.[3] The immigrant panel is a representative sample obtained from true probability sampling in the

[3] The pre-registration can be found at https://osf.io/3dakt. As can be seen in the pre-registration, I originally planned to test the inclusion necessity argument introduced in Study 2 in Study 1 already. However, given sample size and measurement point constraints, these analyses were no longer justified. I thus only examined the first research question in Study 1 and introduced the inclusion necessity argument in Study 2. See Supplement A for analyses as pre-registered, including inclusion necessity.

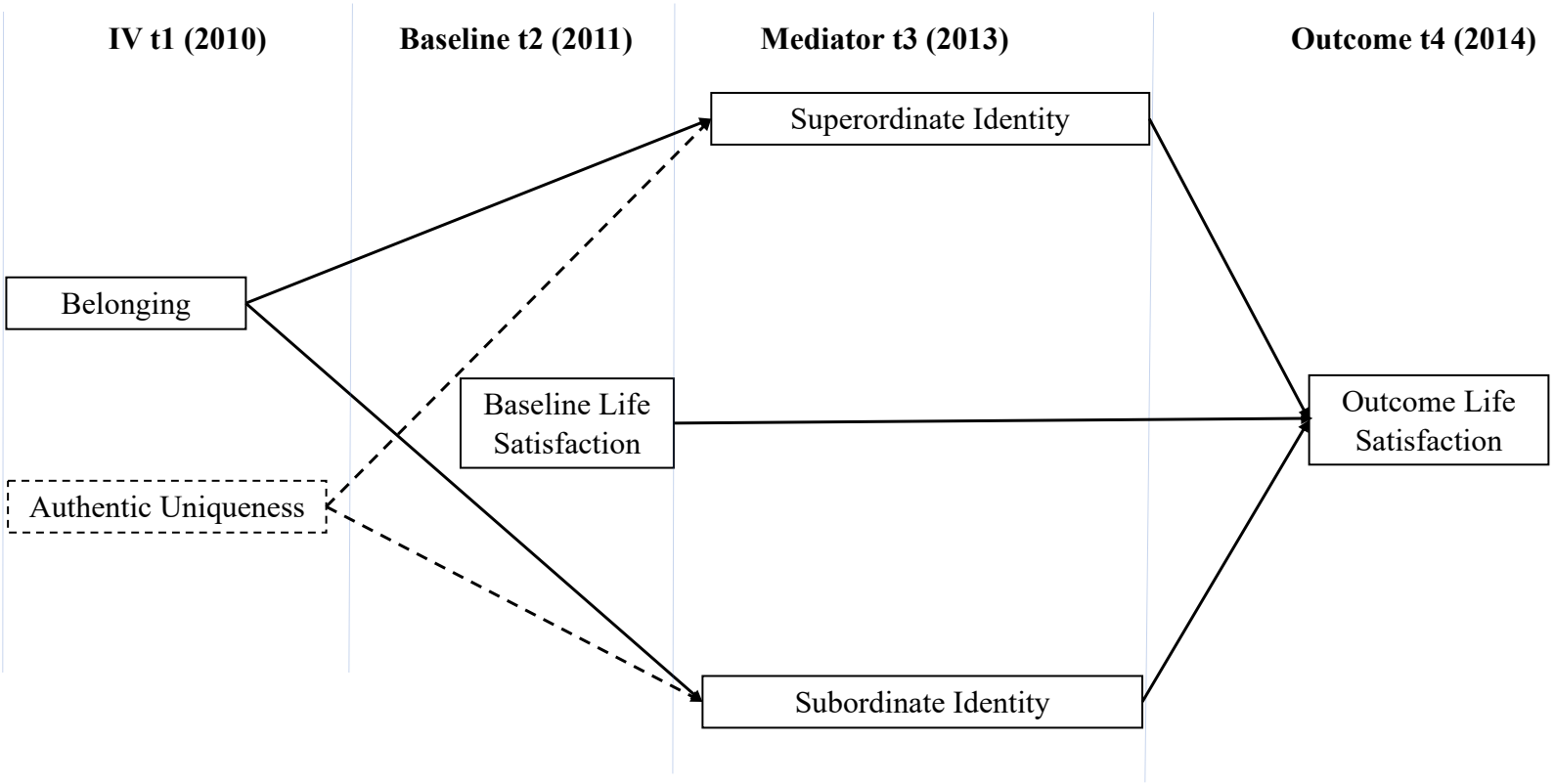

Figure 2. Conceptual models Study 1: The model without the dashed parts is Model 1 (Simple Inclusion), the model including the dashed parts is Model 2 (Full Inclusion). Covariances not displayed.

Netherlands (for more information on the panel, see https://www.lissdata.nl/about-panel). Participants rated belonging and authentic uniqueness in 2010 (t1, see Table 1), baseline life satisfaction in 2011 (t2), and identities in 2013 (t3). Finally, outcome life satisfaction was attained from 2014 (t4).

Table 1
Assessment times in Study 1

2010 (t1)	2011 (t2)	2013 (t3)	2014 (t4)
- August: Belonging + Authentic uniqueness - November: Demographic variables	- May: Baseline life satisfaction - May: Affect t2	- September: Superordinate identity - September: Subordinate identity	- May: Life satisfaction - May: Affect t4

Participants. An a priori power analysis using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) suggested a required sample size of $N = 150$ when expecting a small effect size with $\alpha = .05$, and a power of $1 - \beta = .80$. The effect size was a conservative estimate based on previous studies (Adams et al., in prep; Versteegen & Adams, in prep.). Whereas the raw data contained $N = 4{,}288$ participants, I deviated from pre-registration and only analyzed non-Dutch participants, thus resulting in $N = 3{,}566$ participations. I did so to circumvent confounding of superordinate and subordinate identities, which could have been the case when including Dutch majority participants (see Adams et al., in prep.; Study 3, for a discussion of this issue). Further, focusing on minorities reduced statistical noise around potential differences in identity threat perception between majority and minority members (cf. Branscombe, Schmitt, et al., 1999). Maximal one member per household was assessed, and reminders were sent out twice. All participants had given informed consent.

Unfortunately, only $N = 199$ participants of non-Dutch origin had responded to all measures. I used only complete participations to keep Type I error under control (Steven & Pituch, 2015). Although this loss of many participants was suboptimal, I deemed this to be the best strategy, especially as analyzable cases still exceeded the required sample size. In this final sample of $N = 199$, participants (55.3% female) had a medium age of $M_{Age} = 49.97$

(SD_{Age} = 15.37). As can be seen in Table 2, the sample was fairly educated (57.8% College or higher), and mostly employed (42.6%) Respondents lived on average with $M_{Housemates}$ = 2.28 ($SD_{Housemates}$ = 1.19) and had a monthly average net income of M_{Income} = 1648.90€ (SD_{Income} = 2437.77€).

Table 2
Sample statistics (N = 199)

Variable		*n*	%
Gender	Female	110	44.7
	Male	89	55.3
Highest Education	Not yet started or completed any education	18	9.0
	High School	61	30.7
	College	84	42.2
	University	31	15.6
	Other	5	2.5
Primary Occupation	Employee	92	46.2
	Self-employed	12	6.0
	Job-seeking	10	5.0
	Student	14	7.0
	Homemaker	20	10.1
	Retired	38	19.1
	Work disability	9	4.5
	Other/Too young for work	4	2.0
Origin Group	First generation foreign, Western background	74	37.2
	First generation foreign, non-Western background	30	15.1
	Second generation foreign, Western background	88	44.2
	Second generation foreign, non-Western background	6	3.0
Religiosity	Yes	65	32.7
	No	123	61.1
	Don't want to say	1	0.5
Religion	Roman Catholic	40	20.1
	Protestant Church	5	2.5
	Evangelical or Pentecostal	2	1.0
	Reformed Churches	3	1.5
	Judaism	1	0.5
	Islam	8	4.0
	Others/I don't know	73	2.1
	Missing	135	67.8

Note. Demographics of all participants (N = 3,566) from the March 2011 wave.

Measures. I investigated 78 variables. I analyzed variables reflecting a participant's perception of belonging and authentic uniqueness as independent variables. As mediators, I

analyzed a superordinate and a subordinate identity. I operationalized the former with a Dutch identity measure. For the latter, I analyzed ethnic identity[4]. Life satisfaction was examined as a dependent variable. Besides common demographic background variables, I controlled for baseline life satisfaction and affect.

Inclusion. Whereas full inclusion comprised both dimensions, simple inclusion captured belonging only. Each dimension was assessed with five items asking for the support towards belonging, such as "People who come to live in the Netherlands should change their behavior to be more like the Dutch." (α = .75), and authentic uniqueness, for example, "Ethnic minorities should be helped to preserve their cultural heritage in the Netherlands." (α = .70). All items were rated on a 1 (disagree entirely) to 5 (agree entirely) Likert scale (see Supplement B for all measures).

Identity. The superordinate Dutch identity was assessed using five items (α = .89), such as "I am proud to be Dutch." Five items (α = .86) using the piped ethnicity of the participant assessed subordinate ethnic identity, such as "Being [e.g., Turkish] is an important part of who I am." (Both scales 1 (disagree entirely) – 5 (agree entirely)).

Well-Being. Well-being was assessed with the six-item ($\alpha_{Baseline}$ = .89, $\alpha_{Outcome}$ = .91,) Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985), e.g., "I am satisfied with my life" (all 1 (strongly disagree) to 7 (strongly agree)).

Background variables. I assessed age, gender, origin group (native, first or second-generation immigrants), religiosity (yes, no), religion (specific religions), education level, occupation status, and income because prior research (Adams et al., in prep., Study 3) had suggested that these might have an impact on identities and well-being. Finally, I assessed

[4] I opted for ethnic identity as a subordinate identity because I expected most of the minority participants to have an ethnic identity (other than, for example, religious identity). Moreover, as I did not find an indication of why ethnic identity should differ substantially across minority groups, this operationalization helped to guarantee that superordinate and subordinate identity were not confounded. See Adams et al. (in prep., Study 3) for a discussion on the interaction of superordinate and subordinate identity.

affect with the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988) simultaneously with baseline and outcome life satisfaction to account for potential short-term effects of mood on the well-being assessment. The twenty-items can be categorized into positive (α_{t2} = .85, α_{t4} = .86) and negative (α_{t2} = .94, α_{t4} = .93) affect.

Results

Preliminary analyses and psychometrics. I conducted all preliminary analyses in SPSS Statistics 26. Inspection of the data did neither suggest any data to be missing not at random (MNAR; Scheffer, 2002) nor any outliers that were influential data points. Next, I dummy-coded all categorical demographic variables and computed mean scales for the belonging, authentic uniqueness, superordinate and subordinate identity, both life satisfaction, and all four subscales of the PANAS variables. Psychometric analyses suggested that all variables had satisfactory ($\alpha_{\text{Authentic Uniqueness}}$ = .70) to high ($\alpha_{\text{NA\_t4}}$ = .93) internal consistency (see methods for all other consistencies). All scales showed a unidimensional factor structure, respectively.

Descriptive statistics. Mean analyses (see Table 3 for all means and correlations) suggested that life satisfaction and affect remained relatively stable over the two years. Perceived belonging was a little lower than authentic uniqueness; superordinate identification was stronger than subordinate identification. In line with theory (Breugelmans & Van De Vijver, 2004), belonging and authentic uniqueness were related negatively. Interestingly, subordinate identity was negatively correlated with belonging but positively associated with authentic uniqueness. Subordinate identity was associated with lower life satisfaction; superordinate identity was associated with more positive affect. Finally, high life satisfaction in 2011 was strongly associated with its equivalent measure in 2014.

Table 3

Correlation matrix for index variables, Study 1

Variable	*M* (*SD*)	1. (t1)	2. (t1)	3. (t2)	4. (t2)	5. (t2)	6. (t3)	7. (t3)	8. (t4)	9. (t4)
1. Belonging (t1)	3.10 (0.72)	1								
2. Authentic Uniqueness (t1)	3.22 (0.65)	–.58**	1							
3. Life satisfaction (t2)	4.86 (1.20)	–.05	.09	1						
4. Positive affect (t2)	4.44 (1.00)	–.01	–.04	.17*	1					
5. Negative affect (t2)	2.24 (1.29)	.05	–.04	–.29**	.12*	1				
6. Superordinate identity (t3)	3.45 (0.78)	.00	–.07	.18**	.16*	–.12				
7. Subordinate identity (t3)	3.02 (0.86)	–.27**	.18*	–.10	.08	.10	1			
8. Life satisfaction (t4)	4.84 (1.23)	–.06	.10	.69**	.17*	–.20**	–.16*	–.15*	1	
9. Positive affect (t4)	4.32 (1.00)	–.02	–.06	.25**	.53**	.03	.07	.07	.32**	1
10. Negative affect (t4)	2.18 (1.14)	.10	–.07	–.24**	–.07	.46**	.14*	.13	–.35**	.00

Note. Pearson Correlations. Criterion: ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed). Except for the life satisfaction and PANAS measures, all items were rated from 1 – 5, with higher scores indicating stronger magnitudes, respectively.

Hypotheses testing. I tested the assumptions for path analyses[5] and found them sufficiently given. Using the R-package lavaan (Rosseel, 2019), I followed recommendations by Gana and Broc (2019) and set all variances of the outcome variables to = 1 to define its scaling and simultaneously allow all regression coefficients to be estimated freely. If not indicated otherwise, I set all covariances between the variables = 0. All estimations were conducted using Full Maximum Likelihood Estimation. As all models were non-nested, I used comparative fit indices to compare the overall fit of all path models.

I first tested the hypothesis that superordinate and subordinate identity fully mediates the effect of inclusion on life satisfaction (Hypothesis 1). I modeled a simple inclusion model (Model 1), in which outcome life satisfaction was regressed on its baseline measure and both identities. Both identities were regressed on belonging. The fit of the model was mediocre to acceptable $\chi^2(5, N = 199) = 12.96$, $p = .024$, CFI = .95, RMSEA = .10, AIC = 2556.62, BIC = 2589.56 (see Table 4). Whereas outcome life satisfaction was significantly predicted by its baseline ($\beta = .69$, $p < .001$), I did not find support for the mediation hypothesis under the IIM (Adams et al., in prep.), such that superordinate identity ($\beta = –.08$, $p = .098$) did only weakly negative predict life satisfaction at t4. Belonging did not significantly predict superordinate identification but lower subordinate identity ($\beta = –.27$, $p < .001$).

To test the hypothesis that the mediation model on life satisfaction through both identities would fit the data better based on full rather than simple inclusion (Hypothesis 2), I assessed a second, full inclusion model (Model 2). In addition to the regressions in Model 1, I regressed both identities on differentiation[6]. However, based on AIC and BIC (see Table 4), adding the differentiation as a predictor did not improve model fit $\chi^2(7, N = 199) = 15.16$, $p =$

[5] Other than pre-registered, I only ran hierarchical regressions to check that path analyses were correct (see Supplement C for all regressions in Study 1). However, I used path analyses to test the hypotheses and only report those regressions here for the sake of brevity. Likewise, I did not include the affect variables in the models to not overfit the models given the small sample size (Bentler, 1995). Preliminary regressions justified this procedure, such that affect was only related to life satisfaction but not to belonging, authentic uniqueness, or either identity. See Supplement D for all alternative models tested.

[6] Following the modification indices, I included a covariance between belonging and authentic uniqueness in Model 2. For clarity, covariances are not displayed in the figures.

.034, CFI = .97, RMSEA = .08, AIC = 2873.62, BIC = 2919.73. As the first model was more parsimonious, and differentiation did not significantly predict either identity, I interpreted Model 1 as the best-fitting model (see Figure 3). As neither of the hypotheses could be supported, I concluded that full inclusion did not excel simple inclusion, thus not answering the first research question positively.

Table 4
Overview of fit indices for the five models in Study 1

Fit index	χ^2/df	CFI	TLI	RMSEA [LB; UB]	AIC	BIC
(1) Simple Inclusion	2.59*	.95	.90	.10 [.035; .166]	2556.63	2589.56
(2 Full Inclusion	2.17*	.97	.92	.08 [.020; .130]	2873.62	2919.73

Note. Criterion: All models fits after taking meaningful fit indices into account. CFI = Comparative Fit Index, TLI = Tucker-Lewis Index; RMSEA = Root-Mean-Square Error of Approximation, LB = Lower Bound, UP = Upper Bound, AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion. * $p < .05$

Explorative analyses. The modification indices indicated that the most substantial adaptations included regressions that did not make theoretical sense (i.e., life satisfaction at t2 predicting both identities). Other analyses considered in the pre-registration, such as comparisons of origin groups, were not sufficiently powered. To test for suppression, I excluded the baseline life satisfaction variable in another, not pre-registered analysis (Model 3). The model fit improved ($\chi^2(3, N = 199) = 5.83$, $p = .034$, CFI = .97, RMSEA = .07, AIC = 2360.98, BIC = 2400.50) and assimilation negatively predicted subordinate identification ($\beta = –.25$, $p = .003$), which then predicted lower life satisfaction at t4 ($\beta = – .17$, $p = .018$).

Following review recommendations, I tested another model (Model 4), in which I regressed identities on a single factor combining the belonging and authentic uniqueness scales (i.e., a mean factor, cf. Adams et al., Studies 1 and 2). However, although the overall fit improved compared to Model 1 ($\chi^2(4, N = 199) = 9.82$, $p = .044$, CFI = .96, RMSEA = .09, AIC = 2242.59, BIC = 2278.81), the inclusion factor was not a significant predictor. I thus opted for Model 1 as the prediction of baseline life satisfaction had been too strong to exclude it (as in Model 3), and to avoid losing information by merging factors (as in Model 4).

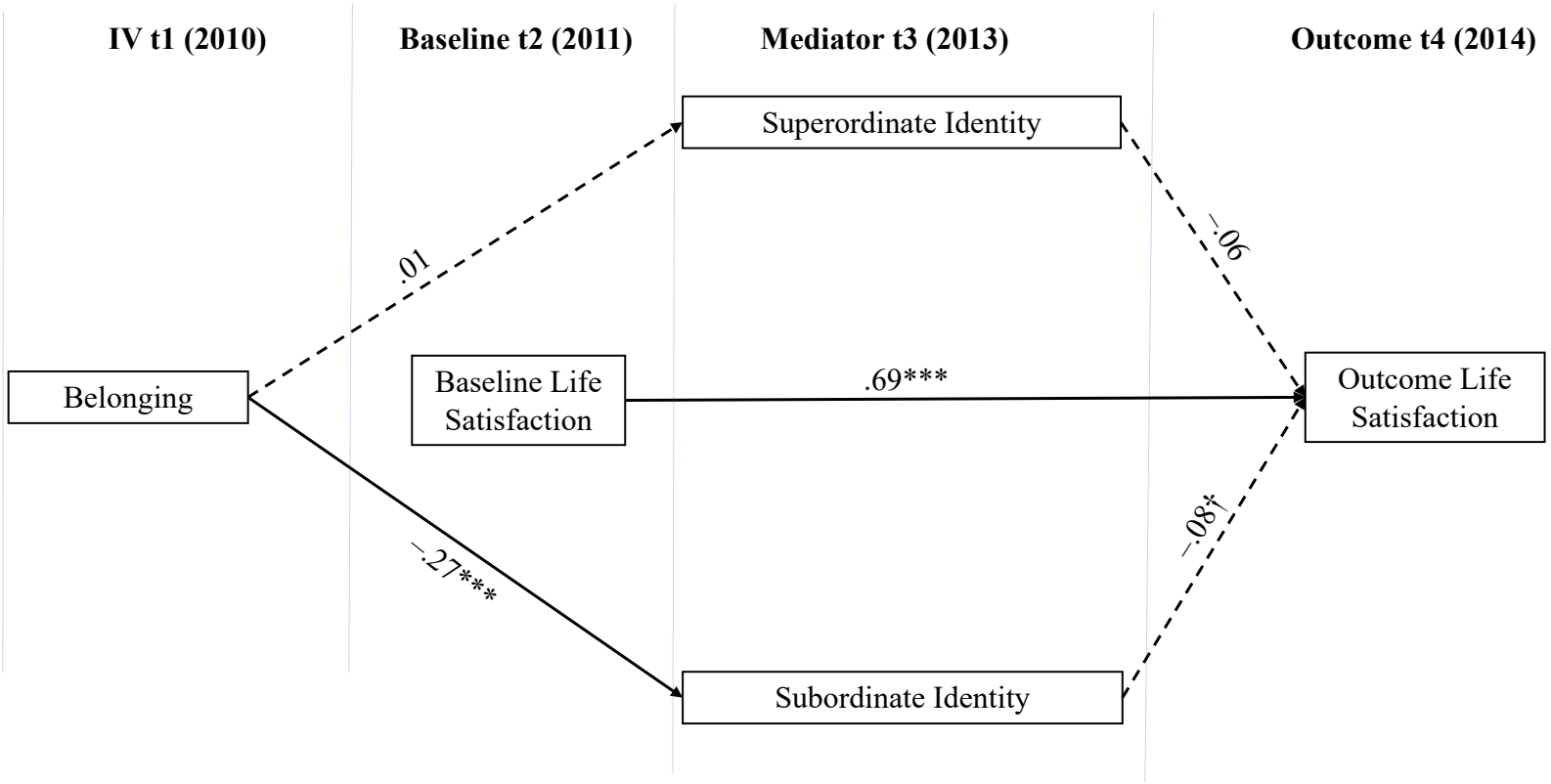

Figure 3. Path model (Model 1) for Study 1 showing standardized path regression coefficients ($N = 199$)
Note. Insignificant paths displayed as dashed arrows. Criterion: *** $p < .001$; ** $p < .01$; * $p < .05$; † < .1. See text for further information.

Discussion

In Study 1, I tested the superiority of full over simple inclusion for the association with identities and well-being. Its longitudinal design allowed moving beyond the investigation of immediate effects and thus to increase criterion validity by assessing long-term effects (Mitchell & James, 2001). However, I did not find support for the two-dimensional conceptualization of inclusion in ODT (Brewer, 1991; Shore et al., 2011), such that adding authentic uniqueness as a predictor did not improve model fit. The findings did similarly not support the IIM (Adams et al., in prep.), such that only belonging (but not authentic uniqueness) predicted identities. Inconsistent with the first two studies in Adams and colleagues (in prep.), belonging predicted weaker subordinate identification three years later. Besides a strong prediction of baseline life satisfaction, the two identities were, although not significantly, associated with lower life satisfaction one year later.

Essentially, the null-findings for authentic uniqueness suggest that the second dimension may not have been necessary for conceptualizing inclusion. Whereas this might be interpreted as a refutation of Brewer's (1991) two-dimensional conceptualization, it could also be due to methodological constraints of the study. Besides the limited sample size, the items were not optimal in gauging belonging and authentic uniqueness, such that they measured attitudes rather than experiences. More practically relevant, the measurement points were unfortunate, such that the three-year time span between independent and mediator variables might have been too long to draw reliable inferences. This means that immediate effects of inclusion would remain uncovered as my design simply did not allow to account for them. Another explanation for the null-findings is that belonging and authentic uniqueness were not relevant enough to the participants. Put differently, two-dimensional inclusion (i.e., full inclusion) could only become superior to one-dimensional inclusion (i.e., simple inclusion) for predicting identity and well-being when inclusion is a necessity. To examine this second research question, I will flesh out and test the argument of inclusion necessity in Study 2.

Study 2

ODT (Brewer, 1991; Shore et al., 2011) based its predictions on individuals satisfying *needs* in times of conflict. In Adams and colleagues (in prep.) and Versteegen and Adams' (in prep.) previous attempts to manipulate the two dimensions, as well as Study 1 of this paper, in contrast, participants may not have experienced the need for satisfying them. This might be a key explanation for why this research did not find support for the two-dimensional conceptualization. Put differently, participants may not have bothered whether they were only assimilated (i.e., belonged) or fully included. It may thus be critical to test the premises of ODT (Brewer, 1991; Shore et al., 2011) in contexts where both dimensions matter to see if simple inclusion is sufficient or if it requires full inclusion for describing an inclusion experience.

Despite research showing that exclusion even hurts when deployed by a despised out-group (Gonsalkorale & Williams, 2007), theoretical arguments (Ellemers & Haslam, 2011; Héliot, Gleibs, Coyle, Rousseau, & Rojon, 2019) and empirical evidence (Jansen, Meeussen, Jetten, & Ellemers, 2019) suggest that inclusion is a function of group, personal, and situational characteristics. Although not exhaustive, the literature suggests that prevalent conditions in which full inclusion may be necessary are a) threatening experiences (i.e., situations in which an established understanding of one's social self is at risk), b) chronic inclusion needs (i.e., people who particularly rely on belonging to and/or differentiating from others), and c) the need for team productivity (i.e., situations that require to collaborate with others and simultaneously perform well as an individual).

First, threat experiences may create the need to be fully included because they lead individuals to strive for belonging and simultaneous expression of individual needs. On the belonging side, mortality salience increases cooperative and peace-promoting attitudes (Pyszczynski et al., 2012), in-group norms (Van den Bos & Miedema, 2000), and group cohesion (Huddy, 2015). Equally, individualization is a common strategy to react to identity

threats (Branscombe, Ellemers, Spears, & Doosje, 1999). The experience of anxiety has been found to increase self-interested behavior (Kouchaki & Desai, 2015). To give an example, the mining scenario at the outset of this paper described how a shared threat made individuals both join together as a group and take care of individual interests. Thus, threatening situations may evoke the necessity to be fully included.

Second, some people have stronger inclusionary needs than others. While a strong affiliation motive increases the need to belong (Baumeister & Leary, 1995), other traits, such as narcissism, heighten a longing for authentic uniqueness (cf. Reeve, 2014). People with disabilities, for example, still need to fight to belong to society (Cameron, 2010) and are simultaneously reliant on others taking care of their individual needs and perspectives. Such a group might be more likely to experience inclusion necessity.

Third, the pressure to be productive as a team might create inclusion necessity. Although a team can be defined as a group collaborating toward a common goal (Dyer, 1984; Parker, 2008), the fact that diversity and individual contributions are fruitful for a team's success (Bassett-Jones, 2005; Kulik & Roberson, 2008) suggests that the satisfaction of both dimensions is needed to be productive. In surgery, for example, doctors must agree on a shared goal, but it is similarly important to guarantee that each specialist (e.g., an anesthetist) can voice her opinion if she deems it necessary. Thus, effective teamwork requires belonging and authentic uniqueness; and might be a third form of inclusion necessity.

In Study 2, I investigated the third form of inclusion necessity in an experiment. Holding belonging high for all conditions, I manipulated authentic uniqueness and inclusion necessity. This allowed comparing a condition in which participants were a) fully included (vs. simple inclusion) and b) experienced this full inclusion to be a necessity (vs. not a necessity; i.e., the inclusion + necessity condition) to three other conditions, in which participants were either only assimilated or in which full inclusion was not a necessity. Doing so, I examined my two general research questions, asking if full inclusion would be superior

to simple inclusion in predicting identities and well-being and if this would only be the case if full inclusion is a necessity.

- *Hypothesis 1*: In line with the IIM, I hypothesized both superordinate and subordinate identities to fully mediate the effect of the inclusion + necessity condition – but not of the three other conditions (i.e., Inclusion, no necessity; Assimilation, no necessity; and Assimilation, with necessity) – on well-being (see Figure 4).
- *Hypothesis 2*: A recent study suggested (Adams et al., in prep., Study 3) suggested a dual-order model, in which belonging and authentic uniqueness predicted affect, which then informed identities. To account for the possibility that this model would fit the data better, I postulated a dual-order mediation through affect and identity as a competing hypothesis. I tested this hypothesis by comparing the model fit between the original IIM and this dual-order mediation model.

Methods

Design and Procedure. After legitimation by the Tilburg University Ethics Review Board (ERB), a pre-registered study applied a 2 (authentic uniqueness: high vs. low) x 2 (productivity necessity: high vs. low) between-subjects design[7]. The study had two parts. In the first part, Tilburg University undergraduate psychology students registered over the Tilburg University Psychology Department participant pool. In line with APA ethics guidelines (2010), they were informed about the cover purpose, their rights, full confidentiality, and the voluntary nature of the study. As a cover, they read that this study was about comparing cultural and general knowledge across various student groups. Specifically, this study allegedly examined whether psychology, engineering, or law students would know

[7] The pre-registration can be found at https://osf.io/a75ky/. Note that, following an early review, I deviated from the pre-registration and did not feed the separate scales of national and ethnic identity into one cultural-ethnic identity but treated them as separate mediating variables.

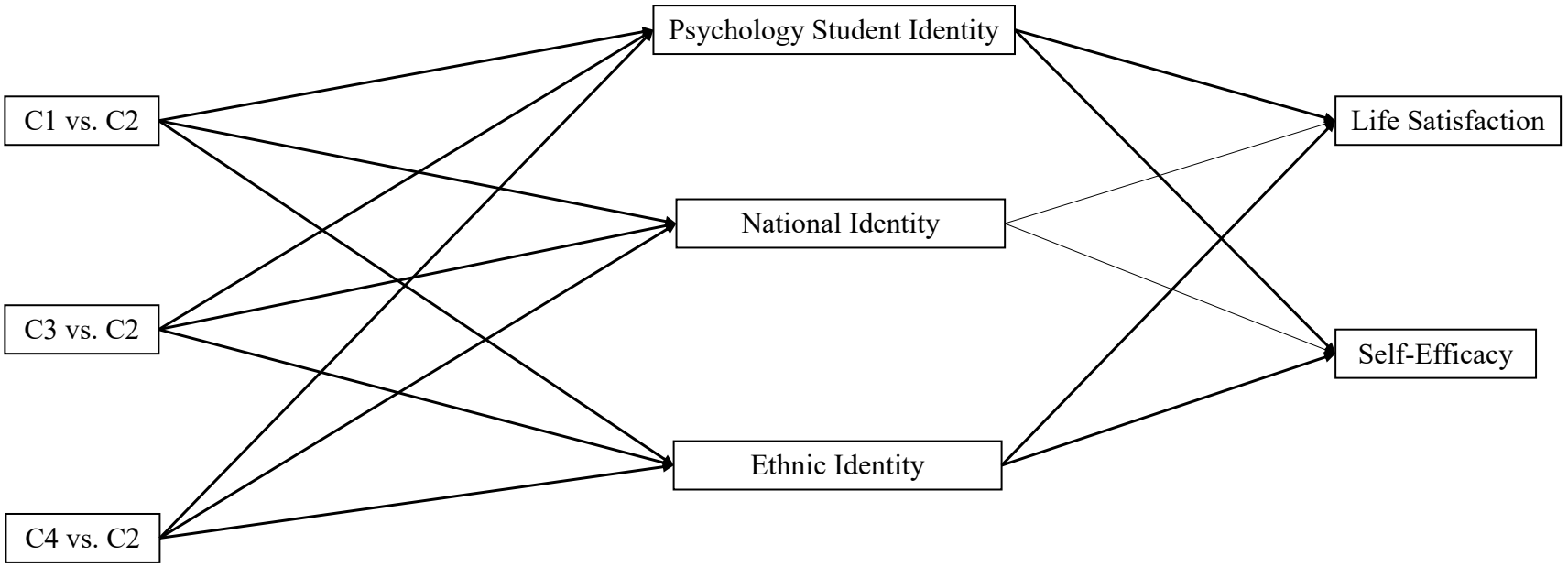

Figure 4. Conceptual model Study 2 (Hypothesis 1): Both superordinate (Psychology Student Identity) and subordinate identities (National Identity, Ethnic Identity) fully mediate the effect of condition (C) on well-being. C1 = Inclusion, no necessity, C2 = Assimilation, no necessity (reference category), C3 = Inclusion, with necessity, C4 = Assimilation, with necessity. Covariances not displayed.

the most. Participants provided demographics and baseline measures of the mediators (superordinate psychology student identity and subordinate national and ethnic identities) and outcomes (well-being: life satisfaction and self-efficacy). In part 2, about a week later[8], participants took a half-hour online quiz. While the belonging level was held constant, I manipulated the participant's opportunity to contribute with individual knowledge (authentic uniqueness: high vs. low), and the incentive to perform well (productivity necessity: high vs. low). After the quiz, participants rated mediator and outcome variables, manipulation check, and some control variables. Finally, they were thoroughly thanked, debriefed, and released.

Participants. An a priori power analysis using G*Power (Faul et al., 2009) suggested a required sample size of $N = 280$ ($n = 70$) applying the same values as for Study 1. Participants were recruited via the Tilburg University Psychology Department participant pool. Participants having completed the study were strictly advised not to talk about the study to potential other participants. Of the $N = 268$ participants (64.9% female, $M_{Age} = 20.29$, $SD_{Age} = 2.17$) who had taken the first part, $N = 77$ had to be excluded from data analysis because they had not, despite three reminders, taken the second part ($n = 64$), because one of their participations had been incomplete ($n = 7$), because they were not psychology students ($n = 2$), or because their data could not be matched across the two parts ($n = 4$). The mean duration was $M_{Duration} = 11.60$ minutes ($SD_{Duration} = 19.48$ minutes). The likelihood of taking the second part was independent of all demographic variables. As can be seen in Table 5, the $N = 191$ complete participants ($M_{Age} = 20.36$, $SD_{Age} = 2.28$) in part 2 were mainly female (69.1%), from the Netherlands (73.3%) or Germany (14.7%), fairly educated, liberal, and non-religious. Participants were approximately equally distributed across conditions ($n_{inc} = 45$, $n_{ass} = 49$, $n_{inc\text{-}nec} = 49$, $n_{ass\text{-}nec} = 48$).

[8] Since data was collected during the peak of the COVID-19 outbreak, participants reported being busy with other issues. In order for them to still participate, I had to allow some participants to take the second part later, which increased the time gap to two weeks. Other participants had to take the second part only five days after the first one to include them in the final sample before data collection was closed. I tested that analyses were not biased by the length of the time gap in preliminary analyses.

Table 5
Sample statistics (N = 191)

Variable		*n*	%
Gender	Female	132	69.1
	Male	58	30.4
	Other	1	0.5
Origin	Netherlands	140	73.3
	Germany	28	14.7
	Romania	5	2.6
	Italy	4	2.1
	Bulgaria	2	1.0
	Finland	2	1.0
	Belgium, Croatia, Czech Republic, England, France, Hungary, Ireland, Poland, Spain, Turkey	10	5.0
Highest Education	High School/GED	137	71.7
	Bachelor's degree	32	16.8
	Some College or Associate's degree	17	8.9
	Other	5	2.6
Primary Occupation	Student	158	82.7
	Part-time employee	24	12.6
	Other	9	4.7
Political Ideology	Extremely liberal	17	8.9
	Somewhat liberal	120	62.8
	Neither liberal nor conservative	43	22.5
	Somewhat conservative	11	5.8
Religiosity	Yes	536	15.1
	No	682	19.2
	Don't want to say	15	0.4
Religion	None	137	71.7
	Christianity	41	21.5
	Islam	4	2.1
	Orthodox	3	1.6
	Other	5	2.6
	Missing	1	0.5

Note. Demographics of all cases ($N = 191$) analyzed in the study.

Materials.

Manipulation. In part 2, participants read that they would represent Tilburg University Psychology students by taking a test that compared cultural and general knowledge across psychology, engineering, and law students. They learned that the test contained 30 questions about countries and study fields, which were randomly chosen from a question pool. Participants read that they would have no difficulties with questions about their study field or country but may struggle with unrelated questions. Next, participants were randomly

allocated to one of two productivity necessity conditions (see Table 6). In the high productivity necessity condition, participants were told that the best study field would collectively get a prize for a new student lounge. Moreover, the five best-scoring participants would get an individual prize of 20€ each. Thus, teams in this condition should have been highly motivated to work as correctly as possible. The rationale for this manipulation is that financial incentives motivate productivity (Conrad et al., 2002; but see Wolf & Zwick, 2008). In contrast, participants in the low productivity necessity condition were told that the best study field would get nothing, but that they could give themselves a round of applause.

Table 6
Design of Study 2

	Inclusion necessity: low (Neither collective nor individual financial incentive)	**Inclusion necessity: high** (Collective and individual financial incentive)
Authentic uniqueness high	**Included:** 3 participant-specific and 6 "random" authentic uniqueness questions.	**Included:** 3 participant-specific and 6 "random" authentic uniqueness questions.
Authentic uniqueness low	**Assimilated:** 0 participant-specific and 9 "random" authentic uniqueness questions.	**Assimilated:** 0 participant-specific and 9 "random" authentic uniqueness questions.

Note. Only the authentic uniqueness questions were varied for each participant. All participants got the same 15 belonging questions (i.e., five psychology, engineering, and law questions, respectively).

At the beginning of the questionnaire, I reminded participants to take advantage of the questions if they were lucky to get questions about their culture as this would allow boosting the total score of their student team. I manipulated the level of authentic uniqueness by adapting the test in such a way that the participant had or had not the opportunity to contribute with individual knowledge. In the inclusion condition, three of the 18 questions were about the participant's country[9]. In the assimilation condition, however, these questions were

[9] With the help of locals, I designed three questions about the culture, politics, food, traditions, celebrities, or history for 34 European countries, respectively. Questions were designed in such a way that citizens would be very likely to get them correct but intricate enough to think that participants from other countries would be unable to answer the question. An example question for a German participant, for example, asked: "How are rolls (Brötchen) called in Bavaria?" (A. Still Brötchen, B. Schrippe, C. Semmel, D. Kipfel). Germans will very likely know this, while non-Germans will be clueless (see Supplement E for all knowledge questions).

randomly replaced by three questions about a different country, such that individual knowledge was negligible.

In short, all participants received 18 questions, of which the nine study-field questions (3 each) always remained the same. The questions had bogus figures displaying the performance of prior participants to increase belonging. The nine authentic uniqueness questions were composed following condition and participant's origin. Whereas participants in the inclusion condition received three questions about their home country and six others, participants in the assimilation condition got nine questions about other countries only. All non-participant-specific questions were the same in order to decrease within-group variability (see Supplement E for the question thread). To rule out the possibility that three questions about a country would have an effect, participants in the assimilation condition also received three questions about the same (but participant-unrelated) country. All questions were 4-option multiple-choice with one correct option and had a 15 seconds time limit to prevent participants from googling the correct solution (see Supplement F for the full questionnaire).

Identity. I assessed a superordinate psychology student identity, as well as national and ethnic subordinate identities. For the former, I adapted the six items (α_{Part1} = .76, α_{Part2} = .77) from the Marketing Professional Identity Scale (Bennett, 2010) to the psychological profession. An example item is "I feel strongly that I am a member of this profession." (all 1 (disagree very strongly) – 7 (agree very strongly)). Regarding the latter, I followed recommendations by early reviewers and administered both the Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) and the National Identity Scale (NIS; Huddy & Khatib, 2007). The six-item (α_{Part1} = .82, α_{Part2} = .83) version of the former includes items such as "I have a strong sense of belonging to my own ethnic group.", the six-item (α_{Part1} = .82, α_{Part2} = .83) NIS asks questions like "Being [citizenship] is very important to me." (both scales 1 (strongly disagree) to 5 (strongly agree)).

Affect. I assessed affect as in Study 1. I measured affect in part 1 (t0; $\alpha_{Positive\_Affect\_t0}$ = .67, $\alpha_{Negative\_Affect\_t0}$ = .76), before the manipulation (t1; $\alpha_{Positive\_Affect\_t1}$ = .70, $\alpha_{Negative\_Affect\_t1}$ = .79) and after the manipulation check (t2; $\alpha_{Positive\_Affect\_t2}$ = .75, $\alpha_{Negative\_Affect\_t2}$ = .83) in part 2.

Well-Being. I assessed life satisfaction and self-efficacy as a baseline in part 1 and as an outcome in part 2. Whereas life satisfaction was gauged with the same items (α_{Part1} = .83, α_{Part2} = .85) as in Study 1, I administered the eight-item (α_{Part1} = .85, α_{Part2} = .85) New General Self-Efficacy Scale (NGSE; Chen, Gully, & Eden, 2001). An example item is "I will be able to achieve most of the goals that I have set for myself" (all 1 (strongly disagree) – 5 (strongly agree)). With life satisfaction, this study maintained consistency with Study 1. I gauged self-efficacy because prior studies showed that the outcome has to be related to the task (Adams et al., in prep., Study 3). As task performance and self-efficacy are bidirectionally related (Honicke & Broadbent, 2016), this seemed to be a suitable operationalization.

Manipulation check. Participants rated the degree to which they felt to belong to the group ("I really felt to belong to my student group.") and to be authentically unique ("I felt that my personal contribution was beneficial for the group."). Three items checked the inclusion necessity manipulation by assessing participants' perceived importance to perform well ("I felt that it was beneficial to perform well as a student group.", "I felt that it was beneficial to perform well as an individual.", and "I felt that it was necessary to perform well."). Moreover, one item directly measured the participants' perception of being included "I really felt included in this group."). All six items were measured from 1 (strongly disagree) to 7 (strongly agree).

Background variables. Besides demographic variables (age, gender, nationality, religion, highest education, occupation status, political orientation), I controlled for the student's GPA and her interest in other countries and cultures.

Results

Preliminary analyses, psychometrics, and manipulation check. As pre-registered, I ended data collection after three weeks, although I had not attained the required sample size of $N = 280$. Duration in the second part took on average $M_{Duration} = 19.29$ minutes ($SD_{Duration} = 10.99$ minutes). Of the maximum of $k = 54$ points available in the quiz, participants received on average $M_{score} = 22.84$ ($SD_{score} = 5.99$), with a minimum of $k = 9$ and a maximum of $k = 42$ points. From the nine study-related questions, participants got on average of 53.11% correct (psychology: 94.23%, engineering: 38.93%, law: 26.18%). There were no substantial differences across conditions for the percentage of correct responses on study-related questions. For the culture-related questions, participants got 85.92% of the questions on their home country correct (ranging from 80.47% in Germany to 93.93% in the Netherlands for the three countries with the most participants). The rate of correct responses for participant-unrelated countries averaged 21.3% and was not substantially different across conditions. None of the participants guessed the study purpose correctly. To not further reduce the sample size, I maintained participants who did not pass the attention check as conservative tracking of their response behavior did not indicate poor participation behavior (e.g., particular short response times, response bias).

Psychometric analyses revealed sufficient ($\alpha_{Positive\_Affect\_t0} = .67$) to high ($\alpha_{Life\ Satisfaction} = .85$) internal consistency for all scales (see methods for all other consistencies). Whereas all other scales loaded one-dimensionally, factor analyses indicated that the ethnic identity items loaded bidimensionally at both measurement points. As announced in the pre-registration, I kept the ethnic identity scale as an additional source of information besides the national identity scale but conducted following interpretations of this scale with care.

Finally, I conducted manipulation checks with one-way analyses of variance (ANOVA). The number of correct responses differed significantly across conditions, $F(3,183) = 28.486$, $p < .001$, $\eta^2 = .32$. Post-hoc Tukey analyses indicated that scores were significantly higher in the inclusion conditions ($M_{Inc} = 25.93$, $SD_{Inc} = 5.54$; $M_{IncNec} = 26.39$, $SD_{IncNec} = 4.78$)

compared to the two assimilation conditions (M_{Ass} = 18.73, SD_{Ass} = 4.40; M_{AssNec} =20.50, SD_{AssNec} = 5.25, all p <. 001). There were no significant score differences across the two inclusion and the two assimilation conditions, respectively. These findings indicate that the manipulation purpose worked as intended and that the two inclusion conditions were indeed able to attain better results.

As this experiment only manipulated authentic uniqueness but not belonging, I expected no differences in the levels of belonging. This was indeed the case, such that levels differed only insignificantly (ranging from M_{AssNec} =3.56 (SD_{AssNec} =1.03) to M_{Ass} =3.96 (SD_{Ass} =.89, F(3,187) = 1.328, p = .238, η^2 = ns.). Nevertheless, although authentic uniqueness means were indeed higher in the two inclusion conditions (M_{Inc} =3.24, SD_{Inc} =1.05; M_{IncNec} = 3.49, SD_{IncNec} = .98) than in the two assimilation conditions (M_{Ass} = 3.22, SD_{Ass} = 1.12; M_{AssNec} =2.94, SD_{AssNec} = 1.10), these differences were not significant (F(3,187) = 2.473, p = .092, η^2 = ns.[10]). Consequently, there were no significant differences in perceived inclusion across conditions (ranging from M_{AssNec} =3.15 (SD_{AssNec} =1.05) to M_{Ass} =3.67 (SD_{Ass} =.90), F(3,187) = 2.34, p = .075, η^2 = ns.[11]).

Regarding the second factor, inclusion necessity, the overall perceived necessity to perform well did not differ significantly across groups (ranging from M_{AssNec} =3.33 (SD_{AssNec} =1.56) to M_{Inc} =3.87 (SD_{Ass} =.83), F(3,187) = 2.54, p = .058, η^2 = ns.[12]. In detail, there were

[10] Since the required sample size had not been attained, I exploratively merged conditions for manipulation checks to guarantee sufficient power. When merging the two inclusion vs. the two assimilation conditions, respectively, authentic uniqueness was descriptively higher in the former ($M_{Inc\_Conditions}$ =3.37, $SD_{Inc\_Conditions}$ =1.02; $M_{Ass\_Conditions}$ = 3.08, $SD_{Ass\_Conditions}$ = 1.12, F(1,189) = 3.521, p = .062, η^2 = ns.).

[11] When merging the two no necessity and the two necessity conditions, respectively, the necessity conditions reported to feel significantly less included than the no-necessity conditions ($M_{No\_Necessity\_Conditions}$ = 3.59 ($SD_{No\_Necessity\_Conditions}$ = 0.96), ($M_{Necessity\_Conditions}$ = 3.26 ($SD_{Necessity\_Conditions}$ = 1.05), F(1,189) = 5.053, p = .026, η^2 = .03) and descriptively felt to belong less ($M_{No\_Necessity\_Conditions}$ = 3.83 ($SD_{No\_Necessity\_Conditions}$ = 0.89), ($M_{Necessity\_Conditions}$ = 3.65 ($SD_{Necessity\_Conditions}$ = 1.04), F(1,189) = 1.654, p = .200, η^2 = ns.). The level of authentic uniqueness was equal ($M_{No\_Necessity\_Conditions}$ = 3.23 ($SD_{No\_Necessity\_Conditions}$ = 1.08), ($M_{Necessity\_Conditions}$ = 3.22 ($SD_{Necessity\_Conditions}$ = 1.07)).

[12] When merging the two inclusion and the two assimilation conditions, respectively, the overall necessity to perform well was significantly higher in the inclusion than in the assimilation conditions ($M_{Inclusion\_Conditions}$ = 3.84 ($SD_{Inclusion\_Conditions}$ = 0.95), $M_{Assimilation\_Conditions}$ = 3.47 ($SD_{Assimilation\_Conditions}$ = 1.13), F(1,189) = 5.851, p = .017, η^2 = .03), as well as the necessity to perform well as a group ($M_{Inclusion\_Conditions}$ = 3.80 ($SD_{Inclusion\_Conditions}$ = 0.88), $M_{Assimilation\_Conditions}$ = 3.49 ($SD_{Assimilation\_Conditions}$ = 1.07), F(1,189) = 4.567, p = .034, η^2 = .024), but not for the

neither differences in the perceived necessity of performing well as a group (ranging from M_{AssNec} =3.31 (SD_{AssNec} =1.06) to M_{Inc} =3.80 (SD_{Ass} =.76), $F(3,187) = 2.514$, $p = .051$, η^2 = ns.) nor in the perceived necessity of performing well as an individual (ranging from M_{AssNec} =3.44 (SD_{AssNec} =1.05) to M_{Inc} =3.86 (SD_{Ass} =.91), $F(3,187) = 2.00$, $p = .116$, η^2 = ns.). In summary, neither the manipulation of authentic uniqueness nor inclusion necessity worked as intended. This, however, may be partially due to a lack of power. Surprisingly, while the level of perceived inclusion was higher in the two no inclusion necessity conditions, the need to be successful (i.e., inclusion necessity), was higher in the two inclusion conditions.

Descriptive statistics. As shown in Table 7, there were no big descriptive differences across conditions in part 1. Indeed, one-way ANOVAs did not indicate any significant differences across conditions for the baseline measures, which justified interpreting findings in light of random allocation. Whereas no particular descriptive patterns became evident for the outcome measures, it was remarkable that the assimilation + necessity condition was, compared to the other three conditions, descriptively lower in perceived belonging, authentic uniqueness, and the perceived importance of performing well. Correlation analyses revealed a firm consistency for all variables across measurement points (see Table 8). For part 2, the psychology student identity was weakly positively associated with well-being but strongly with belonging, authentic uniqueness, and inclusion necessity. National and ethnic identity were interrelated. Both were positively related to well-being. In line with the full inclusion conceptualization, inclusion was positively associated with both belonging and authentic uniqueness. Supporting the inclusion necessity argument, the perceived necessity to perform well (as a group and as an individual) was consistently associated with belonging, authentic uniqueness, and inclusion. The actual performance (i.e., the score) was mostly unrelated to the

necessity to perform well as an individual ($M_{Inclusion\_Conditions}$ = 3.82 ($SD_{Inclusion\_Conditions}$ = 0.86), $M_{Assimilation\_Conditions}$ = 3.63 ($SD_{Assimilation\_Conditions}$ = 1.03), F(1,189) = 1.915, p = .168, η^2 = ns.).

Table 7
Means and standard deviations for all index variables.

Variable	Inclusion – No Necessity	Assimilation – No Necessity	Inclusion – Necessity	Assimilation – Necessity
	***M* (*SD*)**	***M* (*SD*)**	***M* (*SD*)**	***M* (*SD*)**
Psychology Student ID t0	3.95 (0.63)	3.83 (0.75)	3.91 (0.75)	3.95 (0.69)
National ID t0	3.41 (0.87)	3.28 (0.76)	3.53 (0.79)	3.24 (0.75)
Ethnic ID t0	3.15 (0.70)	2.90 (0.80)	3.05 (0.91)	2.90 (0.82)
Life Satisfaction t0	3.59 (0.78)	3.70 (0.88)	3.64 (0.96)	3.52 (0.78)
Self-efficacy t0	3.72 (0.56)	3.80 (0.48)	3.84 (0.48)	3.68 (0.73)
Positive Affect t0	3.28 (0.72)	3.55 (0.58)	3.43 (0.64)	3.33 (0.68)
Negative Affect t0	2.14 (0.67)	2.22 (0.86)	2.13 (0.68)	2.28 (0.74)
Positive Affect t1	3.11 (0.59)	3.00 (0.59)	3.30 (0.64)	3.02 (0.83)
Negative Affect t1	1.88 (0.75)	1.62 (0.66)	1.89 (0.70)	1.78 (0.75)
Psychology Student ID t2	3.87 (0.60)	3.83 (0.69)	3.78 (0.81)	3.85 (0.62)
National ID t2	3.42 (0.86)	3.42 (0.74)	3.58 (0.78)	3.26 (0.73)
Ethnic ID t2	3.16 (0.62)	3.10 (0.76)	3.17 (0.80)	3.06 (0.88)
Life Satisfaction t2	3.52 (0.76)	3.76 (0.87)	3.59 (0.96)	3.62 (0.74)
Self-efficacy t2	3.72 (0.51)	3.81 (0.49)	3.75 (0.54)	3.64 (0.66)
Belonging	3.69 (0.87)	3.96 (0.89)	3.73 (1.06)	3.56 (1.03)
Authentic Uniqueness	3.24 (1.04)	3.22 (1.12)	3.49 (0.98)	2.94 (1.10)
Inclusion	3.49 (1.01)	3.67 (0.90)	3.37 (1.06)	3.15 (1.05)
Perceived overall necessity	3.80 (0.76)	3.67 (1.07)	3.80 (0.98)	3.31 (1.06)
Perceived group necessity	3.78 (0.80)	3.82 (0.99)	3.86 (0.91)	3.44 (1.05)
Perceived individual necessity	3.87 (0.82)	3.61 (1.10)	3.82 (1.07)	3.33 (1.16)
Positive Affect t2	3.20 (0.68)	3.22 (0.69)	3.34 (0.65)	3.13 (0.84)
Negative Affect t2	1.84 (0.73)	1.81 (0.85)	1.89 (0.77)	1.92 (0.77)
Final Score	25.93 (5.54)	18.73 (4.40)	26.39 (4.78)	20.50 (5.25)

Note. Pearson Correlations. All scales were averaged. t0: baseline measure in part 1; t1: affect measure right before the manipulation in part 2; t3: outcome measure after the manipulation in Part 2.
Criterion: ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed). All scales ranged from 1 (Strongly disagree; Very slightly/Not at all) to 5 (Strongly agree/Extremely). The max score in the quiz was k = 54.

Table 8

Correlation matrix for index variables, Study 2

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.
1. Psychology ID t0	1																	
2. National Identity t0	.19*	1																
3. Ethnic Identity t0	.23**	.25**	1															
4. Life Satisfaction t0	.06	.15*	.07	1														
5. Self-efficacy t0	.06	.15	.21**	.31**	1													
6. Psychology ID t2	.66**	.25**	.21**	.12	.09	1												
7. National ID t2	.12	.83**	.29**	.15*	.20**	.28**	1											
8. Ethnic ID t2	.16	.33**	.69**	.09	.15*	.26**	.49**	1										
9. Life satisfaction t2	.03	.14	.06	.82**	.35**	.11	.19**	.12	1									
10. Self-efficacy t2	.08	.16*	.15*	.28**	.78**	.12	.22**	.19**	.39**	1								
11. Positive affect t2	–.01	.24**	.09	.14	.34**	.11	.30**	.17*	.20**	.31**	1							
12. Negative affect t2	–.04	.01	–.05	–.15	–.14	–.02	–.08	–.04	–.24**	–.21**	.19*	1						
13. Belonging	.26**	.10	.07	.11	.13	.43**	.15*	.14	.12	.13	.10	–.08	1					
14. Authentic uniqueness	.20**	.06	.18*	.17*	.23**	.29**	.15*	.23**	.13	.24**	.15*	–.09	.49**	1				
15. Inclusion	.27**	18*	.17*	.17*	.13	.41**	.20**	.15*	.12	.09	.15*	.00	.65**	.47**	1			
16. Overall necessity	.29**	.08	.03	.12	.05	.29**	.11	.07	.14*	.08	.15*	.04	.55**	.38**	.53**	1		
17. Group necessity	.29**	.04	.05	–.05	.10	.18*	.05	.04	–.02	.13	.11	–.03	.26**	.25**	.21*	.41**	1	
18. Individual necessity	.17*	.27**	–.03	.06	–.12	.20**	.20**	.02	.01	–.04	.11	.08	.36**	.25**	.26**	.51**	.50**	1
19. Score	–.02	.11	.08	–.02	.04	–.02	.10	–.02	–.06	.04	–.01	–.08	.04	.13	.01	.11	.08	.14

Note. Pearson Correlations. Criterion: ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed).

other measures. Following the pre-registration, I split correlations according to conditions (see Table 9). While life satisfaction was descriptively more related to identities when inclusion was a necessity, the relationship between self-efficacy and identities did not significantly differ dependent on inclusion necessity. Instead, self-efficacy was more strongly associated with identities in the inclusion conditions than in the assimilation conditions. The association between belonging and authentic uniqueness with the superordinate identity was descriptively stronger in the two necessity conditions.

Table 9

Correlation matrix for index variables in Study 2, split according to conditions

Inclusion – No necessity	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**
1. Psychology ID t2	1					
2. National Identity t2	.25	1				
3. Ethnic Identity t2	.19	.52**	1			
4. Life Satisfaction t2	.06	.13	–.12	1		
5. Self-efficacy t2	.48**	.38*	.47**	.08	1	
6. Belonging	.14	.09	.18	.03	.27	1
7. Authentic Uniqueness	.44**	.16	.28	.00	.50**	.53**
Assimilation – No necessity						
1. Psychology ID t2	1					
2. National Identity t2	.33*	1				
3. Ethnic Identity t2	.21	.58**	1			
4. Life Satisfaction t2	.08	.08	–.01	1		
5. Self-efficacy t2	.04	.28	.03	.59**	1	
6. Belonging	.34*	.26	.14	.28*	.16	1
7. Authentic Uniqueness	.11	.30*	.09	.28	.35*	.55**
Inclusion – Necessity						
1. Psychology ID t2	1					
2. National Identity t2	.39**	1				
3. Ethnic Identity t2	.32*	.67**	1			
4. Life Satisfaction t2	.03	.32*	.32*	1		
5. Self-efficacy t2	–.09	.32*	.27	.50**	1	
6. Belonging	.68**	.26	.12	.12	.07	1
7. Authentic Uniqueness	.32*	–.02	.07	.17	.03	.29*
Assimilation – Necessity						
1. Psychology ID t2	1					
2. National Identity t2	.17	1				
3. Ethnic Identity t2	.29*	.25	1			
4. Life Satisfaction t2	.35*	.27	.19	1		
5. Self-efficacy t2	.19	–.06	.09	.33*	1	
6. Belonging	.44**	–.04	.14	–.02	.04	1
7. Authentic Uniqueness	.43**	.06	.45**	.05	.09	.61**

Note. Pearson Correlations. Criterion: ** $p < .01$ (2-tailed); * $p < .05$ (2-tailed).

Hypotheses testing. As in Study 1, I deviated from the pre-registration and directly tested the hypotheses with path analyses instead of regressions. Before doing so, however, I tested that the assumptions for path analyses were sufficiently satisfied. Chi-square tests indicated that none of the background variables differed across conditions. Finally, univariate regressions of life satisfaction and self-esteem on the background variables did not suggest any substantial prediction of background variables[13]. This justified excluding all background variables in the path analyses to keep the models as parsimonious as possible, given the relatively small sample size (cf. Gana & Broc, 2019). Finally, I dummy-coded the condition variables, using condition 2 (assimilation, no inclusion necessity) as the reference category.

I first tested the hypothesis that both superordinate and subordinate identities fully mediate the effect of the inclusion + necessity condition (but not the other three conditions) on well-being (Hypothesis 1). I regressed life satisfaction and self-efficacy on all three identities, which were then regressed on the three condition dummy variables (Model 1). I modeled covariances between the two well-being variables, the two subordinate identities, and the three condition dummy variables. Model fit was mediocre to acceptable, $\chi^2(8, N = 191) = 24.56$, $p = .002$, CFI = .92, RMSEA = .10, AIC = 2588.00, BIC = 2679.06 (see Table 10). However, whereas conditions were no significant predictors for identity, only national identity predict well-being, such that higher levels of well-being predicted more life satisfaction ($\beta = .17$, $p = .043$) and higher self-efficacy ($\beta = .16$, $p = .051$).

To test the hypothesis of a dual-order mediation through affect and identity (Hypothesis 2, see Supplement D), I assessed a second model, in which identities were additionally regressed on affect at t2, which then was regressed on conditions (Model 2). As the overall fit of this model deteriorated ($\chi^2(21, N = 191) = 62.46$, $p < .001$, CFI = .83, RMSEA = .10, AIC = 3430.87, BIC = 3541.45) compared to Model 1, I treated the first

[13] Although participant's interest in other countries and cultures positively predicted self-efficacy ($\beta = .089$, $p = .033$, $\eta^2 = .027$), I did not include that in the models to avoid overfitting. Models including this covariate as pre-registered (see Supplement G) showed no significant prediction of this variable.

model as the final one[14]. In summary, the two hypotheses did not find support, such that neither the original nor the dual-order mediation model fit the data. This was not even the case when inclusion was a necessity.

Table 10
Overview of fit indices for the five models in Study 2

Fit index	χ^2/df	CFI	TLI	RMSEA [LB; UP]	AIC	BIC
(1) Original IIM model	3.07**	.92	.71	.10 [.06; .15]	2588.00	2679.06
(2) Dual-order model	2.97***	.83	.64	.10 [.07; .13]	3430.87	3541.45

Note. Criterion: All models fits after taking meaningful fit indices into account. CFI = Comparative Fit Index, TLI = Tucker-Lewis Index; RMSEA = Root-Mean-Square Error of Approximation, LB = Lower Bound, UP = Upper Bound, AIC = Akaike Information Criterion, BIC = Bayesian Information Criterion.
* $p < .05$, ** $p < .01$, *** $p < .001$

Explorative analyses. As mentioned above, analyses before hypotheses testing did not indicate significant differences across demographic background variables, thus making the pre-registered exploration thereof redundant. Given that the manipulation had not worked successfully for either factor, I followed the pre-registration and tested if results differed across subgroups. Specifically, I deemed it possible that the overly Dutch sample did not feel authentically unique in the inclusion condition because they could implicitly expect that many compatriot participants would be able to boost the group score on the Netherlands-related questions. However, given the small subsample size of $n = 51$ non-Dutch participants, this test was of limited meaning. Although the means were indeed higher in the inclusion conditions ($M_{\text{Inclusion\_Conditions}} = 3.50$ ($SD_{\text{Inclusion\_Conditions}} = 1.06$); $M_{\text{Assimilation\_Conditions}} = 3.28$ ($SD_{\text{Assimilation\_Conditions}} = 1.03$)), this difference was not significant. Further explorative analyses on group differences did thus not seem appropriate.

[14] Positive affect significantly predicted national ($\beta = .32$, $p < .001$) and ethnic identity ($\beta = .18$, $p = .013$). Negative affect predicted national identity ($\beta = -.14$, $p = .046$). Although national identity was again a significant predictor of well-being, the fact that none of the conditions significantly predict affect left little substantial meaning for this model.

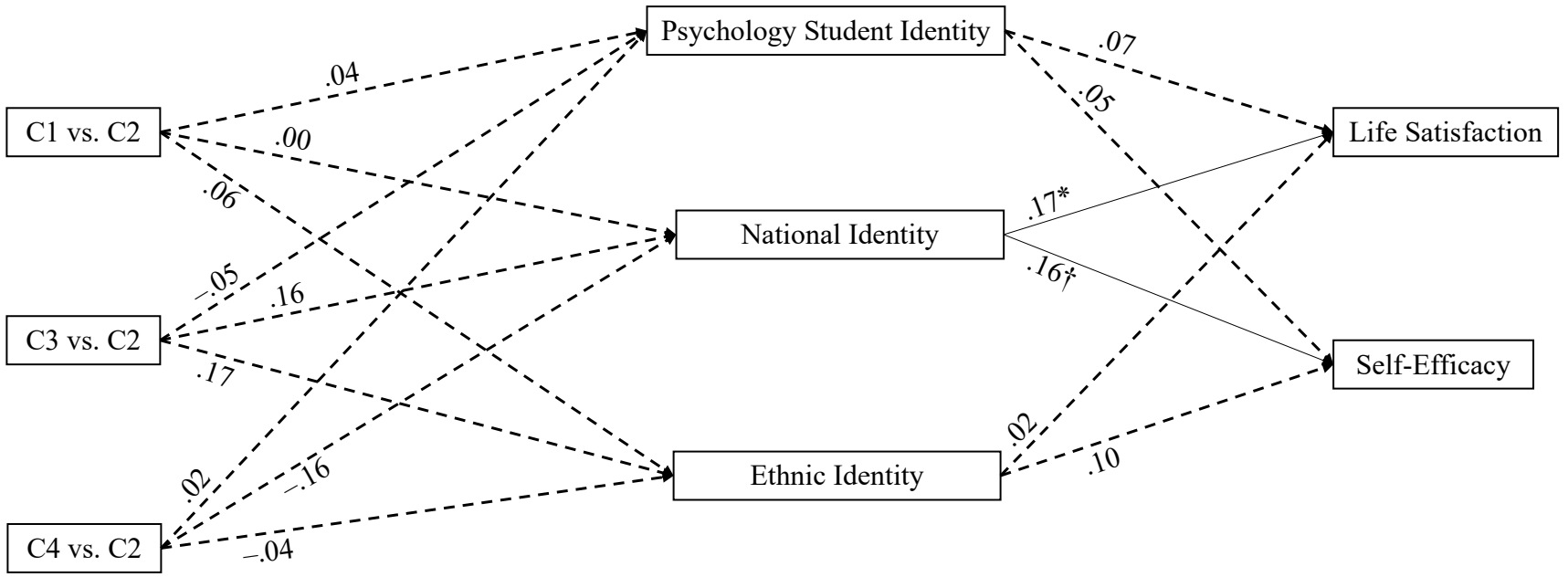

Figure 5. Path model (Model 1) for study 2. Showing unstandardized paths for condition (C) effects and standardized path coefficients for all other effects ($N = 199$). C1 = Inclusion, no necessity, C2 = Assimilation, no necessity (reference category), C3 = Inclusion, with necessity, C4 = Assimilation, with necessity. Psychology Student Identity were considered as superordinate identity, National and Ethnic Identities as subordinate identities.

Note. Criterion: *** $p < .001$; ** $p < .01$; * $p < .05$; † < .1. Insignificant paths displayed as dashed arrows. See text for further information.

Discussion

In Study 2, I extended on the first study by including a necessity condition, which allowed to assess if full inclusion is only superior to simple inclusion when inclusion is a necessity. I manipulated authentic uniqueness and the necessity to be productive (i.e., the necessity to be fully included) in an online experiment. However, I could not find positive answers to either question because I could not successfully manipulate the relevant factors. Although national identity did significantly predict well-being, there was neither support for the original IIM nor the dual-order mediation through affect (as found in Adams et al., in prep., Study 3) because conditions did not significantly inform identities.

However, the null-findings of this study do not contradict the arguments of ODT (Brewer, 1991; Shore et al., 2011), the IIM (Adams et al., in prep.), or the inclusion necessity argument because the ineffective manipulation did not offer the opportunity to evoke the corresponding empirical data. Whereas I will discuss the difficulties in manipulating the two factors in the general discussion, it is essential to acknowledge that the manipulation of each factor had not only been unsuccessful but that each factor affected the second one, respectively. As shown in the preliminary analyses section, the inclusion conditions experienced a good performance as more important than the assimilation conditions, and the necessity conditions reported to feel less included than the no-necessity conditions. These cross-factorial effects might have several reasons, such that, for instance, the financial incentives distracted participants from a group, inclusionary experience in the necessity conditions. More importantly, it supports the argument that the importance of the context is intertwined with the inclusion experience.

General Discussion

In this paper, I examined two research questions. The first question asked whether full inclusion (as premised on Brewer, 1991) predicts group identification and well-being (as suggested by the IIM; Adams et al., in prep.) better than simple inclusion. As the actual

novelty in this paper, the second question asked if full inclusion would only excel simple inclusion when individuals deemed it necessary to be included. In so doing, I followed recent arguments (Ellemers & Jetten, 2013; Jansen et al., 2019) to understand inclusion not as a one-way process of a group wanting to include an individual but as a two-way negotiation of an individual simultaneously searching for being included in that group.

Study 1 gauged the experiences of ethnic minorities in a longitudinal design and found that while belonging predicted lower subordinate identification three years later, only baseline life satisfaction was predictive of outcome life satisfaction. Importantly, and in line with Adams and colleagues (in prep., Study 3), the experience of authentic uniqueness was not relevant for predicting identity and well-being. Study 2 tested one form of inclusion necessity by manipulating the need to be productive as a group. However, as neither the manipulation of authentic uniqueness nor inclusion necessity was successful, there were no significant effects of condition on identity and well-being. An alternative, dual-order mediation model put forward by Adams and colleagues (in prep., Study 3) could not be re-established.

It is noteworthy that inclusion was not only uninformative for identities but that identities were relatively inconsistently related to well-being. Given that theory (Tajfel & Turner, 1986) attributes group identification such an essential role for well-being, and that this has been empirically supported repeatedly (e.g., Branscombe et al., 1999, Jasinskaja-Lahti et al., 2009), it is remarkable that only one of five identities in this paper were related to the outcome. One reason for this may be that well-being was high to very high in both studies, which made it almost impossible for identities to improve it further. In summary, neither of the two research questions could be answered positively. However, this could be due to methodological constraints rather than actual negations of the core hypotheses (cf. Altman & Bland, 1995).

Strengths, Limitations, and Future Research

The fact that this paper contributes to a line of research testing the premises of ODT (Brewer, 1991; Shore et al., 2011) is a considerable benefit as inclusion still is, at least scientifically, mostly treated as not being excluded (cf. Williams et al., 2002). By conducting this work in a general and a student population, introducing inclusion necessity, and testing immediate and long-term effects, I devoted much attention to strong external validity. On the limitation side, however, three major issues deserve discussion for future research.

First, the manipulation of authentic uniqueness in Study 2 was, despite higher test scores in the two inclusion conditions, unsuccessful. This suggests that a participant's advantage in contributing to the group's success did not make her feel authentically unique. One explanation for this is that participants in the overly Dutch sample may have appraised their compatriots as able to answer the questions, thus reducing uniqueness. Using similar materials in a more culturally diverse sample, such as Prolific (Palan & Schitter, 2018), might find a remedy. An alternative explanation related to the failed necessity manipulation would be that participants still did not care enough for authentic uniqueness to matter, which, in turn, did not make them feel authentically unique in the first place. Although this is consistent with the inclusion necessity argument, it makes wonder if authentic uniqueness can be manipulated experimentally. If authentic uniqueness is about feeling respected and valued for what one genuinely is, it may not be possible to evoke it in controlled groups where all participants receive the same treatment. Future research might need to examine the two dimensions (and potentially other components) in more qualitative designs by asking people when and how they feel included.

Second, Study 2 does not allow refuting the inclusion necessity argument because it only tested one form of it, which then did not unequivocally evoke necessity. Besides the above-suggested identity threat and chronically high inclusion needs, there may be other concepts evoking necessity, such as loneliness (Baumeister & Leary, 1995). Only if researchers can guarantee that people feel the need to be included, they can test the argument

as the decisive mechanism determining the superiority of full over simple inclusion. It is thus recommendable to not only ask people what inclusion means to them but also when it was relevant for them to be included in the first place.

Third, although the result that baseline well-being (Study 1) and affect (Study 2, Model 2) predicted group identification and well-being is in line with Adams and colleagues (in prep., Study 3), this may also be to survey errors. Certainly, these results are consistent with a social identity approach, such that individuals need to identify with others to feel well and, reciprocally, find meaning in identifying with others when they feel well (cf. Ellemers & Haslam, 2011; Tajfel & Turner, 1986). Alternatively, the fact that all measures were rated within individuals might evoke acquiescent (Crowne & Marlowe, 1964) or extreme response behavior, specifically as participants were under time pressure. This is especially the case for inventories like the PANAS (Watson et al., 1988) for which the factorial structure remains criticized (e.g., Crawford & Henry, 2004; Seib-Pfeifer, Pugnaghi, Beauducel, & Leue, 2017) and which may thus especially provoke response styles (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Also, albeit the time limits had been implemented to prevent cheating, they might have evoked a sense of inclusion necessity across *all four* conditions (cf. Moore & Tenney, 2012), making not only the manipulation indifferent but homogenizing response behavior. Future research should thus consider controlling for common method bias (CMB; Podsakoff et al., 2003) to rule out this alternative explanation.

Practical Implications

Understanding inclusion is critical to enable its multiple benefits to unfold. Only if we know what inclusion is, we become able to create its experience and reap its assets. First, feeling included is beneficial for well-being. Because human beings understand themselves on an individual, relational, and collective level (Brewer & Gardner, 1996), the question of whether one feels included determines how one can position oneself to others, groups, and, eventually, towards the self. Whereas social relationships are essential on different levels

(Cook, 2005; Baumeister & Leary, 1995; Kawachi & Bergman, 2000; Stainback et al., 1994), it seems that inclusion goes beyond feeling happy towards understanding who one is. This perception of the self as an embedded individual organizes how we identify with those groups, and, eventually, how we evaluate them (Branscombe, Schmitt, et al., 1999; Jasinskaja-Lahti et al., 2009; Verkuyten, 2005). People designing inclusion interventions might thus benefit from understanding their aims not exclusively as a means to make individuals feel better socially but to enable them to sense themselves holistically.

Second, understanding inclusion is not only relevant for the individual but for the group, too. Well-balanced inclusion helps the including group, such that a belonging but simultaneously authentically unique individual may drive innovation (Ellemers & Jetten, 2013). It is the differentiation dimension that enables individuals to become *marginal group members* (Ellemers & Jetten, 2013), who might generate the group's long-term success. If an individual belongs to a group but has nothing particular to add (i.e., a core member), she will prototypically represent the group but remains unable to contribute something new. The recent Brexit, for instance, is an example of an individual country freeing itself from being overly included, such that it was offered high belonging only but lacked the space for authentic uniqueness (perceived as captivity by many British people; Asthana, 2020). In the positive case, in contrast, the effects of well-balanced inclusion might entail a healthy degree of group cohesion, in which one is supportive of but critical to the group's norms and goals, which might then facilitate collective action (cf. Van Zomeren, Kutlaca, & Turner-Zwinkels, 2018). Consequently, existing groups should aim for well-balanced inclusion not only for their members but because it is beneficial for the whole group.

Third, understanding inclusion is informative for intergroup relationships. In western countries, for example, many people of color do not feel included in chiefly white societies. Now, as they nowadays have, at least legally, the same rights and opportunities as their white counterparts and thus belong to the society, their experience would be simply "wrong" in a

simple inclusion sense. From a full inclusion perspective, in contrast, they might belong but lack the opportunity to express their viewpoint and concerns in an authentically unique manner, which results in an experience of not being included (cf. DiAngelo, 2018). This implies that people in power (i.e., politicians, managers) should consider both dimensions when attempting to include individuals and groups into a process. A positive example of this can be found in Marshall and Ishiyama (2016), who show that the inclusion of former rebels into the government increases the likelihood of long-term peace.

Conclusion

In this paper, I examined if inclusion only means to belong or to feel authentically unique simultaneously, and how this changes depending on whether inclusion is a necessity. Although I could not answer these questions positively, I found indicative support for the argument that inclusion is insufficiently understood by focusing on belonging only. Inclusion seems to be a complex, fluid experience, in which the perception of necessity plays a role yet to be understood. Referring to the example given at the outset of this paper, the inclusion experience seemed to drop because the miners were no longer reliant on themselves but received help from external rescuers (Franklin, 2011, pp. 171–179). As this reduced the threat and made the productivity of the miners somewhat less essential, it supports the inclusion necessity argument. Ultimately, inclusion seems to be an experience that becomes complex in light of its context. Understanding it thus requires studying it in the complexity of the situation; perhaps starting with the thirty miners, to whom inclusion was a tool towards survival.

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