

We examined how South Indian students construct their social identities from multiple group memberships—and whether contact with caste and religious outgroups fosters more inclusive social identities. Participants (N = 351) viewed 24 identity cards, each representing a person with whom participants shared none, one, two, or all three group memberships. Participants reported whether they considered each person as “us” or “not us”, showing whom they included in their ingroup, and whom they excluded. Using this method, we found that participants tended to exclude caste and religious minorities, replicating persistent social divides. Bridging these divides, cross-group friendship was associated with more inclusive identities, while more inclusive identities were associated with more favourable outgroup attitudes. Negative contact—but not social dominance orientation—was associated with less inclusive identities, showing that past experiences shaped whom participants considered “us” and “not us”. Contact and identity processes were unrelated to support for affirmative action.

How we feel about and act toward other people depends on whom we consider “us” and “them”—that is, whom we include in our ingroup, and whom we exclude (for a review, see Reimer, Schmid, Hewstone, & Al Ramiah, in press). In some situations, it is clear who is the ingroup and who is the outgroup. On a football pitch, for example, players tend to think of their own team as “us”, and of the other team as “them”, and try their best to make sure their own team wins. In many situations, this distinction is less clear because it rests on multiple category memberships. Often, these category memberships are interrelated. Many Americans, for example, associate being American with being White American (Devos & Banaji, 2005). This suggests that whom Americans consider “us” and “them” might depend on someone’s race *and* nationality (and perhaps other categories, such as religion or language). In this paper, we examine how people’s objective group memberships shape their subjective construals of who is “us” and “not us”, and test what the antecedents and consequences of more inclusive ingroup construals are.

...

As described above, van Dommelen et al. (2015) studied individual differences in how many targets participants included in their ingroup. The researchers recruited homogeneous samples in which all participants shared the same group memberships. Participants’ group memberships, however, should influence whom they consider “us” and “not us”. For a Turkish-Belgian Muslim, for example, social identity structures could reflect how they negotiate their ethnic and national identities (see Berry, 1997). For a White-Belgian Christian,

social identity structures could instead reflect whether they hold nativist or multicultural views. These group differences arise from differences in social status and power. As individuals within groups share these experiences, I expect that group differences are at least as great as, if not greater than, individual differences in social identity structure—especially when groups differ in status and power.

Shared experiences, however, make only part of an individual's day-to-day experiences. Of these, contact experiences could overcome group differences in social identity structure. In particular, intergroup contact could foster more inclusive social identity structures in two ways. First, encountering diverse others should start a process of cognitive differentiation (Schmid & Hewstone, 2011) whereby interaction partners become aware of the complex interrelations of their cross-cutting group memberships (see Roccas & Brewer, 2002). This awareness, in turn, should foster more inclusive representations of social identity structure. Second, as noted previously, Page-Gould et al. (2010) found that intergroup interactions can drive people to include the outgroup of an interaction partner in their self-concept. As far as contact motivates people to include (partial) outgroups in the self, it should encourage ingroup construals that include the interaction partner's combination of group memberships. Together, these mechanisms suggest that intergroup contact could overcome group differences, and foster more inclusive social identities.

In turn, more inclusive social identities should reduce intergroup bias. As argued before, dividing others into “us” and “not us” is a necessary and sufficient condition for ingroup favouritism. If contact leads people to consider more people as “us”, it should also extend ingroup favouritism to a wider range of people, and thus reduce discrimination (see Gaertner et al., 2016). Ingroup favouritism can turn into outgroup derogation (Brewer, 1999) when an outgroup (“they”) threatens the ingroup (“us”). If contact leads people to regard fewer people as “not us”, it should reduce the number of groups (“they”) which could be perceived to threaten the ingroup. Together, these mechanisms suggest that intergroup contact could reduce intergroup bias by fostering more inclusive social identities.

I argue that ... shape whom we consider “us” and “them”, and that this distinction shapes our attitudes and beliefs.

Method

All materials, data, analysis scripts, and appendices are available online (https://osf.io/ekb8z/?view_only=05b6a5c5cf5e43d9a7bba5e192f53f87). Here, we only report measures testing our hypotheses, omitting measures replicating earlier research or validating the categorization task (Appendix X).

Participants

Three hundred and fifty-one students at Karnatak University (Dharwad, India) participated in exchange for writing materials. Of these, we excluded 49 participants who did not belong to any of four caste groups ($n = 20$), failed to indicate their caste group ($n = 7$), or reported Islam as their own or their family's religion ($n = 27$).¹ This left 302 participants who reported Hinduism ($n = 286$), Jainism ($n = 8$), or Christianity ($n = 8$) as their or their family's religion, and General Caste ($n = 99$), Other Backward Class ($n = 127$), Scheduled Caste ($n = 54$), or Scheduled Tribe ($n = 22$) as their caste group. Table 1 summarises participants by gender, age, nationality, religion, and caste.

Procedure

In the first part, participants completed a triple crossed-categorization task (adapted from van Dommelen et al., 2015). Participants viewed 24 identity cards, each showing a person's name, age, religion, nationality, caste reservation, and a head-and-shoulders silhouette. Based on a pilot study, we chose the targets' castes, religions, and nationalities such that each target represented a person with whom participants shared none, one, two, or all three group memberships (Figure 1). Rather than testing participants individually, we simultaneously tested 24–71 participants by presenting targets in a slide-based presentation. Each slide contained a male and a female target with participants focusing on the target corresponding to their gender. Slides also contained a number identifying each target, and the response scale(s) corresponding to the question(s) participants answered at the time (e.g., a feeling thermometer).

In each session, participants first familiarised themselves with each target (for 7s) in an automated slideshow. Participants viewed targets for a second time, noting for each target whether they felt that this person was one of their own group (1 = “us”), or not one of their own group (0 = “not us”). Participants viewed targets for a third time, noting how comfortable or uncomfortable they would feel to share a room with this person (1 = *very uncomfortable*, 7 = *very comfortable*), and how warm or cold they felt toward this person (0 = *cold*,

¹ We excluded Muslim participants as this subsample was too small for meaningful analyses.

100 = *warm*). These questions measured whom participants included in their ingroup, and whom they excluded; how much social distance they desired to each target; and their attitude toward each target. In the second part, participants completed a questionnaire containing the measures described below.

Measures

Intergroup contact was measured as: how often, from 1 = *never* to 5 = *very often*, participants meet outgroup members in their everyday life (contact quantity); and how often, on average, they have positive/good contact and negative/bad contact with outgroup members (Barlow et al., 2012). To make participants' responses more comparable, we preceded these items with examples of positive and negative contact experiences. Outgroup friendship was measured with two items (Turner, Hewstone & Voci, 2007): "How many close friends do you have who are [outgroup members]?" (1 = *none*, 5 = *more than ten*), and "How often do you spend time with [outgroup] friends?" (1 = *never* to 5 = *very often*; $.47 \leq rs \leq .58$). Participants reported contact with four groups: Dalits, people from other backward classes, people from general castes, and Muslims.

Social dominance orientation was measured as how much, between 1 = *strongly oppose* and 7 = *strongly favour*, participants endorsed eight statements about social hierarchies (Ho et al., 2015). Four items measured to what extent participants supported systems of group-based dominance (SDO-Dominance), for example, "some groups of people are simply inferior to other groups". Four items measured to what extent participants opposed egalitarian ideologies (SDO-Egalitarianism), for example, "it is unjust to try to make groups equal".

Realistic threat—from Muslims and Dalits—was measured with three items per outgroup (Schmid, Hewstone, Küpper, Zick & Tausch, 2014), for example, "the more power [Muslims/Dalits] gain in this country, the more difficult it is for [Hindus/people from my caste group]" (1 = *strongly disagree*, 5 = *strongly agree*; $\alpha_{\text{Muslims}} = .71$, $\alpha_{\text{Dalits}} = .79$). Symbolic threat was measured with two items per outgroup, for example, "[Muslims/Dalits] threaten [Hindus'/my caste group's] way of life" (1 = *strongly disagree*, 5 = *strongly agree*; $r_{\text{Muslims}} = .44$, $r_{\text{Dalits}} = .48$).

Perceived life difficulty was measured as how easy or hard participants thought it was, on average, for people from various groups to succeed in India today (1 = *very hard*, 7 = *very easy*). Participants rated seven groups: People from your own background, Scheduled Caste, Scheduled Tribe, Other Backward Class, General Caste, Hindus, and Muslims.

Policy support was measured with five items. Participants read that “currently, 22.5% of seats in central-government funded universities are reserved for Scheduled Caste (SC) and Scheduled Tribe (ST) students”, and that “an additional 27.5% of seats in central-government funded universities are reserved for students from Other Backward Classes (OBC)”. For each group, participants indicated to what extent they opposed or supported reservation in higher education for students from that group (1 = *strongly oppose*, 5 = *strongly support*), and whether they thought that reservation in higher education for students from that group should increase, decrease, or remain unchanged (1 = *decrease a lot*, 5 = *increase a lot*; $r_{SC/ST} = .67$, $r_{OBC} = .67$). Participants then read that “no seats in central-government funded universities are reserved for Muslim students nationally, though some states have introduced quotas for Muslim students”. Participants indicated to what extent they opposed or supported reservation for Muslim students in higher education.

Results

We used the following analysis strategy: First, we tested for group differences in whom participants categorized as “us” and “not us”. Second, we examined to what extent past experiences and ideological orientations explained individual differences in participants’ categorizations. Third, we tested what consequences participants’ categorizations had on their attitudes and beliefs.

Group differences

As discussed, van Dommelen et al. (2015) analysed *which* and *how many* targets participants included in their ingroup as two distinct questions. Instead, we examined how participants’ group memberships shaped their ingroup construals. Thus, we compared *how likely* participants were to categorize *which* target as “us” versus “not us”—and how that probability varied across targets’ and participants’ group memberships.

To that end, we estimated a series of Bayesian multilevel models in RStan (Stan Development Team, 2018) with participants’ target categorizations (1 = “us”, 0 = “not us”) as outcome variable. Models derived the likelihood of the observed proportions of “us” categorizations from the Bernoulli likelihood function with a logit link function. Models assigned weakly informative prior distributions to all fixed intercepts and coefficients (Gelman, Simpson & Betancourt, 2017). Models used the non-centred parameterisation for all varying intercepts (McElreath, 2016). Model 0, for example, estimated the

probability of participants categorizing a target as “us” as varying between participants but fixed across targets:

$$\begin{aligned} y_{ij} &\sim \text{Bernoulli}(\theta_{ij}) \\ \text{logit}(\theta_{ij}) &= \beta_0 + \sigma\beta_j \\ \beta_0 &\sim \text{Student}(2.5, 0, 1) \\ \beta_j &\sim \text{Normal}(0, 1) \\ \sigma &\sim \text{Cauchy}(0, 1) \end{aligned}$$

where θ_{ij} is the probability that participant j categorizes target i as “us”, β_0 is the fixed intercept across targets and participants, β_j is the varying intercept for participant j , and σ is the standard deviation across participants.²

...

Models 0 to 3 estimated the probabilities of participants’ categorizing targets as “us” versus “not us” as varying between participants but fixed across target categories (M0), as varying across participants and target categories (M1), and tested whether SC/ST participants’ categorizations of Indian targets differed from GM and OBC participants’ (M2) and whether OBC participants’ categorizations differed from GM participants (M3). ... (Table 2)

Figure 1 shows the estimated probabilities of General Merit (GM), Other Backward Class (OBC), and Scheduled Caste / Scheduled Tribe (SC/ST) participants categorizing a target as “us”. As expected, few participants considered Bangladeshi Muslims as part of their ingroup, $\text{Pr}(\text{“us”}|\text{M2}) = .17, [.14, .21]$. Roughly half of the participants included Sri Lankan and Nepali Hindus in their ingroup, $\text{Pr}(\text{“us”}|\text{M2}) = .46, [.41, .52]$, indicating that participants were more likely to consider foreign targets as “us” when they were Hindu rather than Muslim, $\Delta\text{Pr}(\text{“us”}|\text{M2}) = .29, [.25, .34]$. Still, GM/OBC and SC/ST participants were, respectively, 1.95, [1.73, 2.18] and 1.90, [1.71, 2.14] times more likely to categorize Indian, Hindu targets as “us” compared to foreign, Hindu targets. Participants thus tended to define their ingroup in terms of nationality, though about half of the participants seemed to endorse more inclusive ingroup construals.

As expected, participants’ own caste membership shaped how they categorized Indians of different castes and religions. Almost all GM/OBC participants included *Hindu, GM* and *Hindu, OBC* targets in their ingroup, $\text{Pr}(\text{“us”}|\text{M2}) = .94, [.92, .96]$ and $\text{Pr}(\text{“us”}|\text{M2}) = .93, [.91, .95]$. Fewer GM/OBC participants, however, categorized *Hindu, SC/ST* targets as “us”, $\text{Pr}(\text{“us”}|\text{M2}) =$

² The prior distribution $\beta \sim \text{Student}(2.5, 0, 1)$ includes $.001 < \theta < .999$ among the 99% most plausible estimates for the probability of participants categorizing targets as “us”.

.84, [.80, .87]. Of all Indian targets, GM/OBC participants were least likely to categorize *Muslim*, OBC targets as “us”, $\Pr(\text{“us”}|\text{M2}) = .75, [.70, .80]$. Dalit/Adi-vasi (SC/ST) participants’ responses differed from those of participants from relatively advantaged castes. As expected, almost all SC/ST participants included Hindu, SC/ST targets in their ingroup, $\Pr(\text{“us”}|\text{M2}) = .97, [.95, .99]$. Fewer SC/ST participants included *Hindu*, GM and *Hindu*, OBC in their ingroup, $\Pr(\text{“us”}|\text{M2}) = .88, [.83, .92]$ and $\Pr(\text{“us”}|\text{M2}) = .80, [.73, .86]$. Surprisingly, SC/ST participants were less likely than other participants to categorize *Muslim*, OBC targets as “us”, $\Pr(\text{“us”}|\text{M2}) = .47, [.38, .57]$, $\Delta\Pr(\text{“us”}|\text{M2}) = -.27, [-.37, -.18]$. Together, these findings showed that participants from advantaged caste backgrounds tended to exclude targets from disadvantaged backgrounds (and vice versa), while all participants tended to exclude targets from the Muslim minority.

Individual differences

In this section, we examine to what extent individual differences in past experiences and ideological orientations explain why some participants excluded targets from national, religious, and caste outgroups—and why others did not.

Models 4 to 6 tested whether intergroup contact was associated with whether participants categorized Indian targets of other caste or religious backgrounds as “us” versus “not us”. Model 4 extended Model 2 by including contact quantity, positive contact, negative contact, and outgroup friendship as predictors of participants’ target categorizations. Model 4 made more accurate predictions than Model 2. Looking closer at the model’s predictions, negative contact ($e^\beta = 0.81, [0.72, 0.90]$) and outgroup friendship ($e^\beta = 1.50, [1.28, 1.72]$) were associated with participants’ responses, but neither positive contact ($e^\beta = 1.01, [0.87, 1.16]$) nor contact quantity ($e^\beta = 0.99, [0.86, 1.15]$) were. Model 5 included only negative contact and outgroup friendship as predictors of participants’ categorizations, and made more accurate predictions than Model 4. Model 6 estimated the relationships between contact and target categorizations as varying across the four combinations of target caste and religion. As Model 6 made less accurate predictions than Model 5, the association between contact and categorizations did not vary across target categories.

Figure 2 shows the estimated probabilities of participants categorizing targets as “us” versus “not us” as a function of negative contact and outgroup friendship (in Model 5). Across targets and participants, the odds of categorizing a target of a religious or caste outgroup as “us” were $e^\beta = 1.50, [1.32, 1.69]$ times higher for each additional standard deviation of outgroup friendship.

Conversely, the odds of categorizing an outgroup target as “us” were $e^{\beta} = 0.81$, [0.72, 0.90] times lower for each additional standard deviation of negative contact. This means, for example, that GM/OBC participants who reported “never” having any negative contact with Muslims were more likely to categorize Indian Muslims as “us” compared to participants who reported “sometimes” having negative contact, $\Delta\text{Pr}(\text{“us”}|M5) = .05$, [.09, .03]. GM/OBC participants who reported no friendships with Muslims were a lot less likely to include Indian Muslims in their ingroup than participants who had 2–5 Muslim friends with whom they “sometimes” spent time, $\Delta\text{Pr}(\text{“us”}|M5) = .18$, [.12, .24]. Together, these findings showed that contact experiences were associated with whom participants considered as “us” and “not us”.

Models 7 tested whether social dominance orientation was associated with how participants categorized targets of other caste or religious backgrounds. Specifically, Model 7 tested whether two subdimensions of social dominance were associated with participants excluding targets of comparably lower status. Model 7 found little evidence for the relationships between participants’ categorizations and their SDO-Dominance scores ($e^{\beta} = .$, [.],) or SDO-Egalitarianism scores ($e^{\beta} = .$, [.],), and did not make more accurate predictions than Model 2. Together, these findings showed that both group and individual differences explain whom participants included in their ingroup. As expected, past experiences with outgroup members explained why some participants included targets of (objective) caste or religions outgroups in their (subjective) ingroup, when others did not. Other than expected, ideological orientations did not seem to motivate participants to exclude lower-status groups.

Consequences

After examining the antecedents of participants’ categorizations, we analysed how participants’ categorizations related to their warmth and social distance ratings for each target in the categorization task, to their perceptions of intergroup threat, and to their perceived life difficulty and policy support.

To that end, we estimated a series of multivariate models with participants’ target-wise ratings of social distance and warmth as outcome variables (Table 3). Models 0 to 3 estimated ratings (on either outcome) as varying between participants but fixed across targets (M0), as varying across participants and targets (M1), and tested whether SC/ST participants’ responses differed from GM and OBC participants’ (M2) and whether OBC participants’ responses differed from GM participants (M3). Models 1 to 3 improved upon the predictions of preceding models, showing that participants’ ratings of a target

depended on that target's group memberships, that SC/ST participants' ratings of Indian targets differed from GM/OBC participants', and that OBC participants' ratings differed from GM participants'.

Models 4 to 6 tested whether participants who categorized a target as "us" rated that target more favourably than participants who categorized the same target as "not us". Models estimated this difference as constant across targets and participants (M4), as varying across the six target categories (M5), and tested whether this difference depended on participants' own caste memberships (M6). Models 4 and 5, but not Model 6, made better predictions than less complex models, showing that how favourably participants felt toward a target depended on whether they had categorized that target as "us" or "not us", and that the size of this difference depended on the group memberships of that target—but not on the group membership of the participant.

Figure 3 shows the estimated social distance ratings for all categories as a function of target categorizations and participants' caste memberships (in Model 5). For all categories, participants felt more comfortable sharing a room with targets that they categorized as "us" than with targets they categorized as "not us". Across participants, this difference was smallest for *Indian, Hindu, GM* targets ($\beta = 0.46$, [0.08, 0.81]; $d = 0.20$, [0.03, 0.35]) and *Indian, Hindu, OBC* targets ($\beta = 0.63$, [0.30, 0.94]; $d = 0.27$, [0.13, 0.41]), followed by *Indian, Hindu, SCST* targets ($\beta = 0.95$, [0.65, 1.27]; $d = 0.41$, [0.28, 0.55]) and *Indian, Muslim, OBC* targets ($\beta = 1.07$, [0.82, 1.32]; $d = 0.46$, [0.35, 0.57]). This difference was greatest for *foreign, Muslim* targets ($\beta = 1.45$, [1.22, 1.70]; $d = 0.63$, [0.53, 0.73]) and *foreign, Hindu* targets ($\beta = 1.24$, [0.97, 1.52]; $d = 0.53$, [0.42, 0.66]).

Figure 4 shows a similar pattern of results for participants' warmth ratings. The difference between targets categorized as "us" and targets categorized as "not us" was smallest for *Indian, Hindu, OBC* targets ($\beta = 6.8$, [2.3, 11.1], $d = 0.21$, [0.07, 0.34]), followed by *Indian, Hindu, GM* targets ($\beta = 12.4$, [7.5, 17.3], $d = 0.38$, [0.23, 0.53]), *Indian, Hindu, SCST* targets ($\beta = 12.3$, [8.2, 16.4], $d = 0.37$, [0.25, 0.50]) and *Indian, Muslim, OBC* targets ($\beta = 13.6$, [10.4, 17.3], $d = 0.41$, [0.32, 0.53]). Again, this difference was greatest for *foreign, Hindu* ($\beta = 21.9$, [18.9, 25.3], $d = 0.67$, [0.57, 0.77]) and *foreign, Muslim* ($\beta = 16.8$, [12.8, 20.3], $d = 0.51$, [0.39, 0.62]) targets. Ratings of warmth and social distance were highly correlated ($r = .58$, [.56, .60]). Together, these findings show that categorizing a target as "us" was associated with more warmth and less social distance toward that target.

Next, we tested whether participants' perceptions of realistic and symbolic threat differed depending on the inclusiveness of their ingroup construals.

Specifically, we examined whether participants reported feeling less threatened by Muslims and Dalits if they categorized more targets from these outgroups as “us” versus “not us”. Results from a series of multilevel models showed that participants reported more realistic ($M = 3.62$, [3.49, 3.75]) than symbolic ($M = 3.21$, [3.09, 3.33]) threat from (same-religion) Dalits, but less realistic ($M = 3.23$, [3.06, 3.38]) than symbolic ($M = 3.47$, [3.34, 3.61]) threat from (different-religion) Muslims. Contrary to predictions, we did not find more inclusive categorizations to be associated with intergroup threat. For details, see Appendix X.

Finally, we examined ... For details, see Appendix X.

Overall, we found that when participants included a person in their in-group, they had, on average, more favourable attitudes to and desired less social distance from that person. Participants’ categorizations, however, were not related to more general perceptions of intergroup threat and life difficulties, or to support for affirmative action.

Discussion