UC Berkeley
UC Berkeley Previously Published Works

Title

Religion insulates ingroup evaluations: the development of intergroup attitudes in India

Permalink

https://escholarship.org/uc/item/2hb4854q

Journal

Developmental Science, 17(2)

Authors

Dunham, Yarrow

Srinivasan, Mahesh

Dotsch, Ron

et al.

Publication Date

2014-02-25

Peer reviewed

SHORT REPORT

Religion insulates ingroup evaluations: the development of intergroup attitudes in India

Yarrow Dunham,[1] Mahesh Srinivasan,[2] Ron Dotsch[3] and David Barner[4]

1. Department of Psychology, Yale University, New Haven, USA
2. Department of Psychology, University of California, Berkeley, USA
3. Behavioural Science Institute, Department of Psychology, Radboud University, Nijmegen, The Netherlands
4. Department of Psychology, University of California, San Diego, USA

Abstract

Research on the development of implicit intergroup attitudes has placed heavy emphasis on race, leaving open how social categories that are prominent in other cultures might operate. We investigate two of India's primary means of social distinction, caste and religion, and explore the development of implicit and explicit attitudes towards these groups in minority-status Muslim children and majority-status Hindu children, the latter drawn from various positions in the Hindu caste system. Results from two tests of implicit attitudes find that caste attitudes parallel previous findings for race: higher-caste children as well as lower-caste children have robust high-caste preferences. However, results for religion were strikingly different: both lower-status Muslim children and higher-status Hindu children show strong implicit ingroup preferences. We suggest that religion may play a protective role in insulating children from the internalization of stigma.

Research highlights

- We provide one of the first developmental investigations of intergroup attitudes with respect to abstract social groups, in this case caste and religion in India.
- Caste develops in ways quite similar to race in North America, with preference for higher- over lower-caste children appearing in children who are themselves at several positions along the caste hierarchy or even outside the caste system entirely (i.e. Muslim children).
- By contrast, religion functions quite differently, with both culturally dominant Hindu children and culturally marginalized Muslim children showing strong preferences in favor of their own religious group.
- These results suggest that social groups that are embedded in rich systems of cultural meaning and spiritual justification can play a protective role, insulating children from internalizing ingroup-negative evaluations.

Introduction

Beginning in childhood, humans organize into groups, form allegiances, and develop strong explicit and implicit attitudes that reflect and perpetuate existing social hierarchies. Members of high-status groups, like white children in America, implicitly prefer ingroup members by as early as 3 years of age (Dunham, Chen & Banaji, 2013). However, members of lower-status groups, like black children in America, either show no ingroup preference or exhibit a preference for the dominant outgroup (Aboud, 1988; Newheiser & Olson, 2012; Newheiser, Dunham, Merrill, Hoosain & Olson, in press). Currently, efforts to understand this status-related asymmetry are limited by the restricted range of social groups that have been studied. Although race is a critical case study, humans are united – and divided – by more abstract groups, such as religion, which are not defined biologically or by visual appearance, but instead by moral, spiritual, and cultural frameworks that are explicitly endorsed by group members and affirm the group's value (Pargament, Magyar & Murray-Swank, 2005; Silberman, 2005). In the present study, we explored the development of intergroup attitudes in Indian children with respect to two such groups: religion and the Hindu caste system. Our primary goal was to assess the degree to which conclusions from studies of race generalize to other important social groups. A secondary goal was to test the possibility that religion, as a uniquely

Address for correspondence: Yarrow Dunham, Department of Psychology, Yale University, 2 Hillhouse Road, New Haven, CT 06511, USA; e-mail: ydunham@princeton.edu

group-affirming social identity, might insulate children of lower-status groups from forming negative ingroup evaluations.

We tested attitudes toward religion and caste in Vadodara, India, in the state of Gujarat. Like most regions of India, Gujarat has a large Hindu majority (89%), and a substantial Muslim minority (9%; Census India, 2011), with Hindus possessing greater economic and political power (Ansari, 2006). Over the past decade, relations between these groups have been acrimonious. In 2002, a series of riots erupted in the state after a train containing Hindu pilgrims was allegedly attacked and burned by a Muslim mob. Subsequent retaliations against the state's Muslim population resulted in over 1000 deaths, hundreds of attacks on religious sites, more than 35,000 arrests, and thousands of displaced refugees (Amnesty International, 2005). More generally, in Gujarat, as in other regions of India, Hindu–Muslim tensions exist, and are coupled with a clear asymmetry of power, with Hindus in the majority and wielding overwhelming political power over the Muslim minority. These facts suggest that, if attitudes towards religion are similar to racial attitudes in the US, then majority-status Hindus may exhibit positive ingroup attitudes, whereas minority-status Muslims may not, and may even have negative implicit attitudes toward their own group. However, it is also possible that religious attitudes differ from racial attitudes. Religious communities, like the Muslim and Hindu communities of India, are characterized by rich spiritual, moral, and cultural practices that affirm group identity (Silberman, 2005; Ysseldyk, Matheson & Anisman, 2010). Also, religions provide frameworks within which to understand and reinterpret challenging aspects of life (Pargament, 1997; Park, 2005). These differences raise the possibility that religious belief may insulate children from the ingroup stigma that is found in disadvantaged racial groups, and thus, that both Hindu and Muslim children may exhibit strong ingroup preferences.

Caste also plays an important, though perhaps more subtle, role in Indian social organization. The Hindu caste system consists of an explicit hierarchy of groups, which are inherited by children from their parents, defined historically by traditional occupational roles, and associated with distinct rights and obligations (Bayly, 1999; Dirks, 2001). Although hundreds of caste distinctions exist across India, the four primary categories are *Brahmin* (traditionally priests), *Kshatriya* (traditionally warriors and kings), *Vaishya* (traditionally merchants and agriculturists), and *Shudra* (traditionally laborers and servants). Individuals who fall outside of this system – and who have historically lived in dire poverty and disadvantage – have been called *untouchables*, or more recently *Dalits* (literally 'crushed' or 'broken', a term of self-definition and political mobilization). *Dalits* have traditionally been offered only the most stigmatized occupations in Indian society, including the maintenance of latrines and disposal of dead bodies. While the role of caste has diminished as India has modernized and economic mobility has increased, it remains correlated with economic status (Thorat & Newman, 2007), and is salient in social relationships, most notably in the choice of marriage partners (Das, Das, Roy & Tripathy, 2010). Like religion, and unlike race, caste is an abstract social structure, imposed upon individuals independent of their visible biological characteristics. However, unlike most religions, caste is rigidly conferred by birth and is immutable across the lifespan. Also unlike religion, caste membership is explicitly defined in relation to social status, conferring a position in an explicit hierarchical structure.

Although both religion and caste in India have received attention from sociologists and anthropologists (e.g. Clothey, 2007; Dirks, 2001), these groups have remained largely unexplored by psychologists (although religion has received attention as an intergroup domain; Ysseldyk *et al.*, 2010). Developmental research has focused on children's understanding of broad religious concepts (Boyer & Walker, 2000), with some evidence that children develop early attitudes toward religion (Heiphetz, Spelke & Banaji, in press; Diesendruck & haLevi, 2006). However, these studies have focused on religious groups that are also distinguished by race (e.g. Muslims and Jews in Israel), and have tested only the attitudes of dominant group members, leaving open whether religion insulates disadvantaged groups from negative self-evaluation. Meanwhile, although some research has explored the caste system in India, this literature is sparse and decades old. For example, there is evidence that higher-caste individuals show stronger in-caste biases and a degree of social dominance (Bohra, 1979; Ruback & Rao, 1989), and that a majority of college students, while supporting the abolition of caste, say they would not marry outside their caste (Anant, 1978). But caste attitudes have yet to receive significant developmental attention (with the notable exception of Mahalingam, 1999).

In examining caste and religion, our first question concerned broad developmental trends in intergroup attitudes. Are these abstract and non-biologically marked categories salient to young children, such that intergroup attitudes emerge in a way similar to that observed with other social categories? Second, we asked whether religion – which bears a privileged relationship with spiritual, moral, and cultural practices (Silberman, 2005) – might insulate children from the consequences of

disadvantaged status that have been observed with race (Newheiser & Olson, 2012; Newheiser *et al.*, in press). Specifically, we tested whether Muslim children exhibit preferences for their own religious group, despite their lower status. Third, we compared children's religious attitudes to their attitudes towards caste. For caste, we tested the attitudes of not only high- and low-caste Hindu children, but also of Muslim children, who fall outside the system. Finally, we asked whether contact between Hindus and Muslims moderates religious ingroup preference by comparing children from a homogeneous Hindu school to those from an integrated Hindu-Muslim school.

To address these questions, we probed children's explicit attitudes using self-report, and measured implicit attitudes using the Implicit Association Test (IAT; Greenwald, McGhee & Schwarz, 1998), and the Psychophysical Reverse Correlation procedure (RC; e.g. Mangini & Biederman, 2004). The RC task, not previously used in developmental studies, widened our methodological approach beyond the IAT. Using RC, we tested social bias at the perceptual level by asking participants to judge whether randomly generated faces better resembled members of one social group or another (e.g. Hindus vs. Muslims), and then merging those judgments together to create composite faces representing each social group. Previous studies with adults indicate that composite faces created for a participant's ingroup show greater emotional positivity than faces created for an outgroup (Dotsch, Wigboldus, Langner & van Knippenberg, 2008). Thus, the RC method, when combined with the IAT, provided converging evidence of social bias from two implicit tasks.

Method

Participants

We recruited 301 participants from two English-language primary schools in Gujarat, India. Children between 3rd and 11th grade participated (*M* age = 11.9 years, *SD* = 2.4 years, male = 59%). One school was overwhelmingly Hindu (95% Hindu; 2% Muslim, 3% other); the other religiously mixed (52% Hindu, 46% Muslim, 1% other). Hindu children at both schools were mixed with respect to caste (27% Brahmin, 15% Kshatriya, 23% Vaishya, 28% Shudra, 2% Dalit, and 3% who did not report an identifiable caste category). Adult participants ('raters') were recruited via Amazon's MTurk and rated faces that were generated by children as part of the RC procedure (described below). Raters for caste faces were 99 American and 99 Indian participants, whose locations

in the US and India were verified via IP address. An additional 48 Americans were recruited in the lab and rated the religion faces for their warmth and competence.

Procedures

Children were tested in their schools in several sessions over a two-week period. All children were tested in English. In a first session, participants completed a questionnaire of attitudes and beliefs. To minimize reading demands, 3rd graders were read the questions and responded on an answer sheet; older students read and responded on their own. In a second session, participants completed the IAT; a smaller subset of participants also completed the RC procedure.

Measures

For a detailed description of these measures (and additional analyses) see the Supplementary Online materials.

Questionnaire

Questions assessed explicit attitudes toward prominent social groups, namely caste, religion, language group, school, gender, skin color, and surname (which often implies religion or caste in India), as well as the number of friends children had from different groups, general beliefs about the disposition and wealth of caste groups, and whether people were likely to play together, eat together, or get married across group lines. All answers were provided on Likert-like scales.

Implicit Association Test (IAT)

The IAT is a categorization task in which participants rapidly sort stimuli representing both *valence* (positive or negative) and *group* (either Brahmin–Dalit in the caste IAT, or Hindu–Muslim in the religion IAT) using only two response buttons. For example, in the caste IAT, children rapidly categorized positive and negative stimuli – in this case cartoon smiling and frowning faces – along with variants of the words 'Brahmin' or 'Dalit' displayed in several unusual fonts. The logic of the IAT is that participants will respond more rapidly and accurately when the categories that are mapped to a given response key overlap in valence. For example, if a child has a more positive evaluation of 'Brahmin' as compared with 'Dalit', she should respond more quickly when 'Brahmin' and smiling faces share a response key than when 'Brahmin' and frowning faces do. By comparing reaction times across blocks employing opposite mappings, we computed an effect size representing

implicit attitude strength (*D*; Greenwald, Nosek & Banaji, 2003). Order of experimental blocks was counterbalanced between children, with 30 trials per critical block. Standard exclusion criteria relating to too many trials with latencies less than 400 ms (indicative of rapid key pressing without attention to stimuli) resulted in the exclusion of 9% of participants.
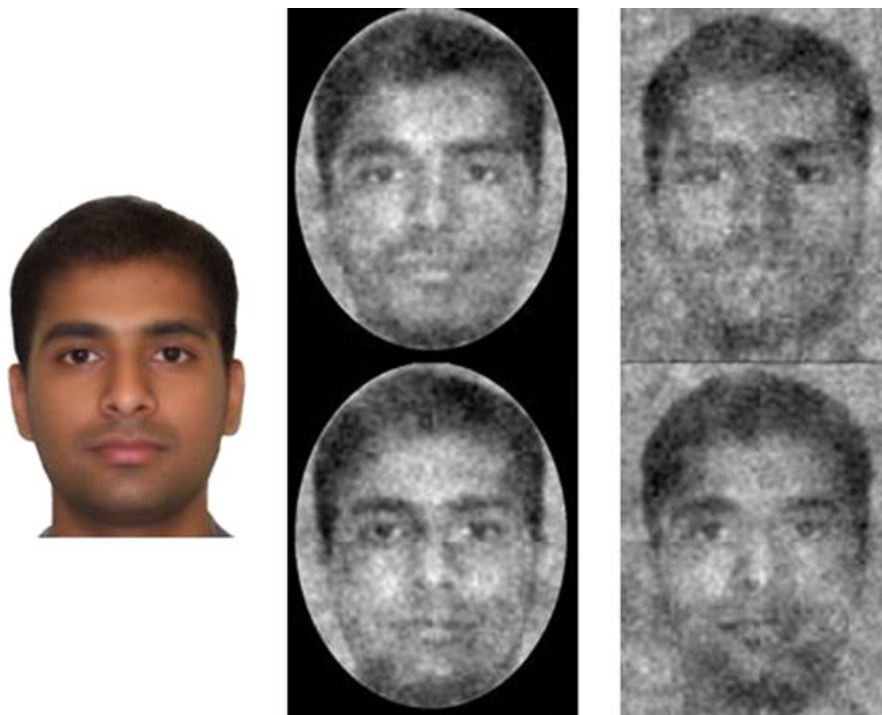
Psychophysical Reverse Correlation procedure (RC)

In the RC procedure (Mangini & Biederman, 2004; Dotsch *et al.*, 2008), a large number of stimuli (in our case 770) are created by adding random noise to a single 'base face', in our case a morph of eight Indian male faces. The addition of noise randomly darkens or brightens pixels of the base face, generating faces with different appearances. We randomly presented 340 of the total 770 stimuli to children, who categorized them as either Brahmin or Dalit (in the Caste RC), or as Hindu or Muslim (in the Religion RC). By averaging all stimuli categorized into one group (e.g. as Brahmin) and subtracting all stimuli categorized into the other group (e.g. as Dalit), two new 'classification images' (CIs) were produced for each child that aggregated category-diagnostic features (for further detail, see Figure 1 and Supplementary Online materials). Fifty-two children participated in the caste RC, of which 49 provided usable data, and 126 children participated in the religion RC, of which 124 provided usable data. CIs produced from these children's responses were then judged by adult raters for their warmth and competence, which are thought to be primary dimensions of social perception (Fiske, Cuddy, Glick & Xu, 2002).

Results

Questionnaire data

Mean 'importance' ratings for the seven social groups that we investigated are presented in Figure 2, standardized around the average importance of all groups. In brief, school and surname were rated as significantly more important than religion (*p*s < .04), which in turn

Figure 1 *Overview of the reverse correlation procedure. Left panel is the 'base face', actually a morph of eight Indian male faces. Middle panel displays two example stimuli (of a total of 770 used in the procedure) produced by adding a Gaussian noise pattern to the base face; participants categorized a series of these faces in a forced choice manner, and all stimuli placed into each category are then averaged to produce classification images (CIs; right panel). Top right is an aggregate of individual Muslim CIs produced by Hindu children, and the bottom right is an aggregate of individual Muslim CIs produced by Muslim children; adult raters find the lower image to be warmer and more competent, providing evidence of subtle bias at the level of face representation. For further methodological details see the Supplementary Online materials.*
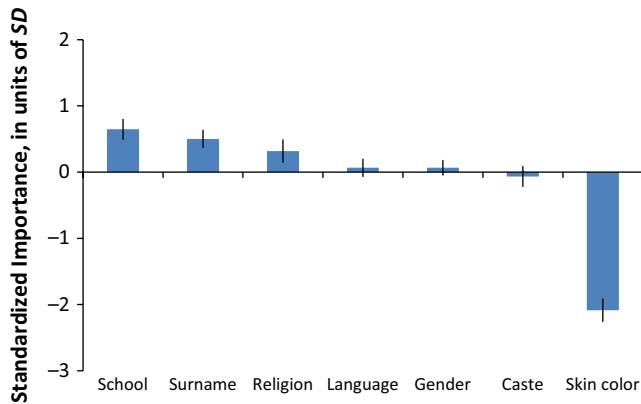
Figure 2 *Standardized importance of several prominent social categories; error bars are 95% CIs around the means.*

were more important than language, gender, and caste ($ps < .04$), which were more important than skin color ($p < .001$). Given that our primary focus was religion and caste, the greater importance of religion is noteworthy. Religion was more important in males, Satterthwaite $t(231.8) = 2.81$, $p = .004$, $d = .32$, and in Muslims, $t(285) = 2.69$, $p = .008$, $d = .42$, but did not differ between Hindu children at the two schools, which varied in religious diversity, $p = .23$.

Inter-religious friendships were relatively rare; the modal response for both Hindu and Muslim children was to report that more than 75% of their friends were of their same religion. However, exposure to individuals of other religions did affect friendships, as Hindu children at the religiously diverse school reported more Muslim friends, $t(163) = 4.57$, $p < .001$, $d = .72$ (although it was still the case that the majority of their friends were Hindu). Friendships with Dalit children were quite rare, with the modal response equating to no Dalit friends, unsurprising given the small number of Dalits at these schools (< 2%).

Turning to beliefs regarding caste, children indicated that most people would consider Brahmins 'nice' (76% selected 'nice', 12% 'mean', and 12% 'don't know') and relatively wealthy (33% selected 'rich', 58% 'middle class', 9% 'poor'). By contrast, children were most likely to say that most people consider Dalits 'mean' (44% selected 'mean', 36% 'don't know', and 20% 'nice') and relatively poor (56% selected 'poor', 28% 'middleclass', 15% 'rich'). These distributions differed from one another, as well as from chance, all $ps < .001$, but were consistent across Hindu and Muslim children, $ps > .14$. These beliefs were stronger in higher-caste children ($ps < .03$) for positive beliefs about Brahmins, but not for negative beliefs about Dalit ($ps > .07$). The tendency to hold wealth stereotypes increased with age, $F(1, 241) = 4.13$,

$p = .043$, while the tendency to hold stereotypes about disposition (nice vs. mean) declined with age, $F(1, 237) = 6.45$, $p = .012$. This can be interpreted as increasingly accurate knowledge of economic class, coupled with an increasing tendency to reject explicitly negative portrayals of groups, trends known to occur across this age range (Raabe & Beelmann, 2011).

Finally, children's expectations about intergroup interactions were consistent with existing status hierarchies. Children indicated that Brahmins would be less willing to play with, eat with, or marry Dalits than vice versa, paired $ts > 5.5$, $ps < .001$, $ds > .33$, and that Hindus would be less willing to play with, eat with, or marry a Muslim than vice versa, paired $ts > 4.7$, $ps < .001$, $d > .27$. Overall, Hindu children expressed stricter expectations about both interreligious and intercaste interactions than Muslim children, both $ps < .005$. Indeed, while Muslim children showed the same general trend with respect to caste expectations ($p = .03$), they did not show differential expectations at all with respect to religion ($p = .58$), expecting Muslims and Hindus to be equally willing to interact with one another.

IAT data

Beginning with the caste IAT, children showed an implicit preference for Brahmins over Dalits, $D = .23$ ($SD = .39$), which differed significantly from an absence of bias (i.e. from 0, $t(165) = 7.66$, $p < .001$). Attitudes did not vary as a function of the child's caste, $F(4, 130) = .48$, $p = .75$, indicating consensus in attitudes across the caste hierarchy. This fits with studies of racial attitudes, in which higher-status groups are preferred, even in individuals who are not members of those groups (Dunham, Baron & Banaji, 2007; Dunham *et al.*, 2013; Newheiser & Olson, 2012; Newheiser *et al.*, in press). Interestingly, despite being formally outside the caste hierarchy, an implicit preference for Brahmins also extended to Muslim children, whose responses did not differ from those of Hindu children, $t(161) = .21$, $p = .84$ (Figure 3).

Strikingly, although attitudes toward caste did not differ as a function of the child's caste, religious attitudes differed markedly as a function of the child's religion, with Hindu children exhibiting a reliable pro-Hindu bias, $D = .28$ ($SD = .28$), $t(184) = 10.42$, $p < .001$, and Muslim children exhibiting a reliable pro-Muslim bias, $D = -.26$ ($SD = .33$), $t(60) = -6.06$, $p < .001$. Children's gender, caste, and age did not moderate any effects. Also, the absolute magnitude of Hindu and Muslim children's ingroup biases did not differ, $t(244) = .38$, $p = .70$. Together, these results stand in strong contrast to those of the caste IAT (see Figure 4), and to previous findings regarding race, both of which would predict
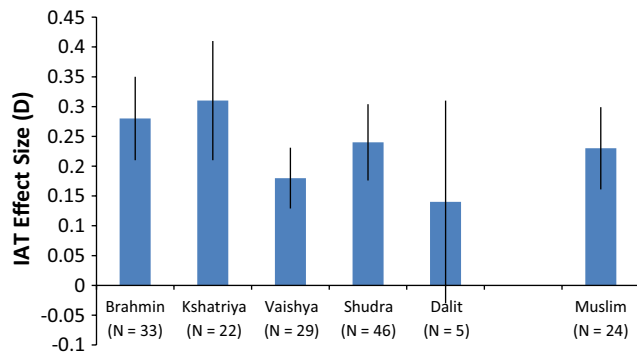
Figure 3   *Implicit caste attitudes by participant caste / religion; higher values indicate greater Brahmin over Dalit implicit preference. Error bars are standard errors of the means.*
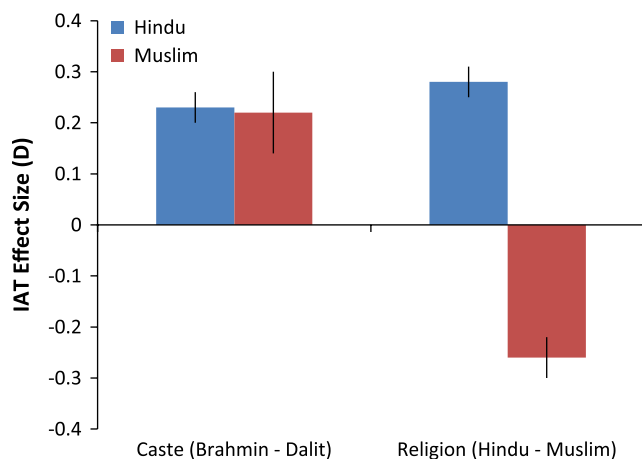
Figure 4   *Summary of implicit caste and religious attitudes for Hindu and Muslim participants; higher values indicate greater Brahmin over Dalit or Hindu over Muslim implicit preference. Error bars are standard errors of the means.*

that lower-status individuals (i.e. Muslims) should exhibit weak ingroup biases or biases favoring the higher-status outgroup (i.e. toward Hindus; Dunham, Baron & Banaji, 2008).
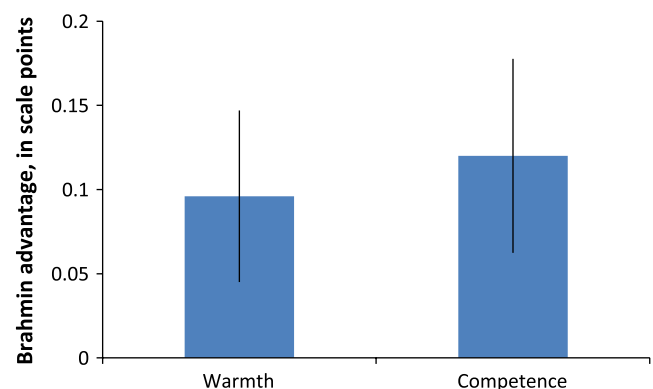
Reverse Correlation (RC) data

Adult ratings of caste Classification Images (CIs) did not differ across Indian and US raters, $ps > .54$, and exhibited high correlations, ranging from .49 to .89, all $ps < .001$, suggesting that Indian and US raters were responding to the CIs in highly similar ways and that evaluations of the CIs are not specific to cultural conceptions of appearance. We therefore collapsed across group (and used only US raters for the religion CIs, below). To allow joint analysis of both rater-level and CI-level variability, data were analyzed in a linear mixed model with ratings of individual CIs nested within raters. Overall, Brahmin CIs were rated as warmer and more competent than Dalit CIs, $ts > 3.7$, $ps < .001$ (Figure 5). Ratings of CIs did not differ as a function of the source child's caste IAT bias (continuously or via median split) or participant's actual caste. This is again consistent with the existence of highly similar implicit caste attitudes in individuals across the caste hierarchy.

Again, a strikingly different pattern emerged in the case of religion. Fitted mean ratings are displayed in Figure 6. Here, we found a significant effect of the child's religion on adult raters' warmth judgments, $F(1, 5602) = 19.18$, $p < .001$, with CIs from Hindu children showing a Hindu advantage on warmth, and CIs from Muslim children showing a Muslim advantage, both $ps < .003$ (three children who were neither Muslim nor Hindu were excluded from analyses). There was a parallel effect of the child's religion on adult raters' competence judgments of CIs, $F(1, 5592) = 5.25$, $p = .022$, although these effects were less reliable when each religious group was considered separately (Hindu advantage for CIs from Hindu children: $p = .17$; Muslim advantage for CIs from Muslim children: $p = .067$). Thus, in contrast to the cases of caste and race, the lower-status group – Muslims – did not exhibit a bias toward the dominant group (i.e. Hindus), and indeed showed an ingroup preference that was as strong as that shown by Hindus.

Discussion

We investigated the development of Indian children's attitudes toward religion and caste, which differ in important ways from race, the dominant test case for studying intergroup attitudes in the US. Using two

Figure 5   *Mean (predicted) Brahmin advantage, in scale points, on the caste reverse correlation procedure. Error bars are 95% confidence intervals for the estimate.*
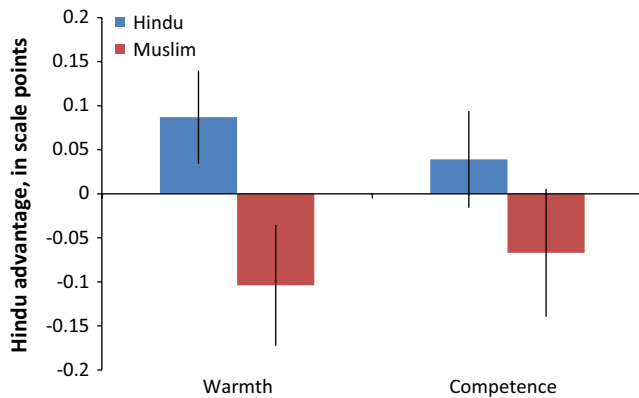
Figure 6 *Mean (predicted) difference scores in warmth and competence ratings, by religion of source participant. Error bars are 95% CIs.*

measures, including reverse correlation (RC), a method new to developmental research, we found that caste attitudes resembled those previously reported for race: regardless of their own caste group, children showed an implicit preference for high-caste groups (a result that extended even to Muslim children, who fall outside the Hindu caste system). By contrast, religion functioned very differently: preference for one's own religious group was equally strong in high-status Hindu and in lower-status Muslim children, on both the IAT and the RC procedure. Thus, religion played a uniquely protective role in insulating children from the internalization of stigma associated with their group. These results are in striking contrast with previous work, which has shown that lower-status groups exhibit weak or non-existent ingroup preferences (Dunham *et al.*, 2008, 2013; Newheiser & Olson, 2012), and at times, even preferences for higher-status outgroups (Newheiser *et al.*, in press).

We found few age-related differences in children's implicit attitudes, for either the IAT or the RC, despite finding developmental differences in children's explicit attitudes. This reinforces prior work on children's evaluations, which finds a gradual moderation of self-reported attitudes with age, but a persistence of strong implicit attitudes over development (Dunham *et al.*, 2008; Raabe & Beelmann, 2011). However, this pattern is surprising in the present case, since religion and caste are complex social systems that children continue to learn about throughout their lives, and which are not obviously detected from perceptual cues alone. Despite these factors, children are quick to develop intergroup attitudes regarding each, and maintain consistent implicit attitudes over development even as their self-reported beliefs change.

Also surprising, given the abstract nature of these groups, is that implicit bias materialized in children's

perceptual projections of groups. Using RC, we found that, by as early as grade 3, children generated aggregate faces of outgroup members that were less warm and competent in appearance than those generated for ingroup members. For example, Hindu participants produced warmer and more competent Hindu faces, and Muslim participants did the opposite. This demonstrates that the RC procedure is useful for interrogating a perceptual component of intergroup bias even when the groups in question are not clearly differentiated by specific phenotypic facial features. Because perceived warmth and competence play a central role in determining the quality of intergroup interactions (Fiske *et al.*, 2002), such perceptual biases may predict children's social preferences and even direct their choice of friendships, perpetuating intergroup segregation and discrimination. In addition, the results from the IAT and RC underscore the limited effectiveness of simply increasing exposure to diversity. Children at the more diverse school had considerably more cross-religion friendships, but they did not differ in their intergroup attitudes, with children from both schools showing strong preferences for members of their religious ingroups and for members of a higher caste.

The central finding of this study is that, unlike race and caste, religion appears to insulate children from negative ingroup evaluation. This difference is unlikely to result from religion being less salient than caste; religion was judged to be more important than caste, and is typically marked by patterns of dress, custom, and social interaction as much as or more than caste. Thus, the difference between religion and caste likely results from differences between the domains themselves. In India, as in many regions of the world, religion defines moral and spiritual beliefs and provides structure to daily social activities, infusing nearly all elements of life (Pargament *et al.*, 2005). Many of these activities serve to validate group members, by advancing narratives of moral and spiritual truth or even superiority (Silberman, 2005; Ysseldyk *et al.*, 2010). For example, such narratives are embodied in rituals, stories, songs, and dances that are explicitly taught to children by parents and other adults in the community. Bigler and Liben (2007) propose that such environmental messages are crucial inputs to intergroup attitudes. While these group-affirming properties are not entirely absent in the case of caste (or race, e.g. Phinney, 2003), they are not as pervasive or defining, and may be more contingent on group status (e.g. present in Brahmins, but not in lower castes). Thus, they may uniquely provide religion with a means of insulating children against the stigma that affects other minority groups (e.g. racial groups). In ongoing research, we are exploring whether individual commitment to religious

beliefs and practices predicts differences in ingroup attitudes and resistance to internalizing stigma.

The specific context of our study also suggests another possibility worthy of future consideration. In many regions of India, and in other parts of the world, religious groups are not merely contrasted but actively contested, resulting at times in active and even violent conflict (as in Gujarat). It has long been noted that conflict and competition can polarize intergroup attitudes (Brewer, 1999, 2007); in the present case, the recent history of religious conflict could serve as a force uniting the Muslim minority in a self-protective fashion. Indeed, children are sensitive to cues regarding competition or resource scarcity, and respond to such cues in ways that plausibly increase intergroup differentiation and conflict (Rhodes & Brickman, 2011). Some considerations, however, suggest that a history of conflict cannot fully explain the attitudes of the Muslim children in our study. First, the Muslim children in our sample expressed relatively positive expectations about the role of inter-religious contact (e.g. in sharing food or visiting others' homes), which would not be expected if their model of intergroup relations was primarily rooted in conflict. Second, previous studies have reported an internalization of stigma in members of social groups that also have a history of conflict with a higher-status outgroup (e.g. Blacks in South Africa; Newheiser *et al.*, in press). Thus, we believe that the richer meaning associated with religious practices and belief, as discussed above, is more likely to account for our findings (though of course, these two factors could be operating jointly).

To our knowledge, our study is the first report of a disadvantaged social group that nonetheless maintains a robust ingroup positivity. This finding is important because it opens the door to identifying the specific causal factors that preserve positive ingroup evaluations. This, in turn, is important to the project of designing effective interventions to diminish ingroup stigma. Such efforts are crucial: in the cases of race (Cross & Strauss, 1999; Tull, Sheu, Butler & Cornelious, 2005), sexual orientation (Herek, Gillis & Cogan, 2009), and mental illness (Livingston & Boyd, 2010), higher levels of internalized negativity regarding one's own group relate to negative outcomes in health, education, and other areas. Thus, identifying cases in which internalized negativity does not occur is a crucial step to preventing it in the domains in which it does.

To conclude, research on the development of intergroup evaluations has focused on race, a social domain that, while important in some cultures, does not exhaust the range of affiliations that define the social world. The present findings demonstrate the need to be cautious in extending conclusions gleaned from the study of race to other social groups. In particular, one fundamental social category, religion, provides a uniquely protective role in bolstering the intergroup attitudes of its members.

Acknowledgements

References

Aboud, F.E. (1988). *Children and prejudice*. Oxford: Blackwell Publishers.

Amnesty International (2005). *India: Justice: The victim in Gujarat*. Report of Amnesty International.

Anant, S.S. (1978). Caste attitudes of college students in India. *European Journal of Social Psychology*, **8**, 193–202.

Ansari, I.A. (2006). *Political representation of Muslims in India: 1952–2004*. New Delhi: Manak Publications.

Bayly, S. (1999). *Caste, society and politics in India from the eighteenth centry to the modern age*. Cambridge: Cambridge University Press.

Bigler, R.S., & Liben, L.S. (2007). Developmental intergroup theory: explaining and reducing children's social stereotyping and prejudice. *Current Directions in Psychological Science*, **16** (3), 162–166.

Bohra, K.A. (1979). Social perception of ingroup and outgroup members in India. *Journal of Social Psychology*, **108**, 9–12.

Boyer, P., & Walker, S. (2000). Intuitive ontology and cultural input in the acquisition of religious concepts. In K.S. Rosengren, C.N. Johnson & P.L. Harris (Eds.), *Imagining the impossible: Magical, scientific, and religious thinking in children* (pp. 130–156). Cambridge: Cambridge University Press.

Brewer, M.B. (1999). The psychology of prejudice: in-group love or out-group hate? *Journal of Social Issues*, **55**, 429–444.

Brewer, M. (2007). The social psychology of intergroup relations: social categorization, in-group bias, and out-group prejudice. In A. Kruglanski & T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd edn., pp. 695–715). New York: Guilford Press.

Census India (2011). Available at: http://www.censusindia.gov.in/2011census/PCA/pca_highlights/pe_data.html

Clothey, F. (2007). *Religion in India: A historical introduction*. London: Routledge.

Cross, W.E., & Strauss, L. (1999). African American identity development across the lifespan: educational implications. In R. Hernandez-Sheets (Ed.), *Racial and ethnic identity in*

school practices: Aspects of human development. New York: Taylor & Francis.

Das, K., Das, C.D., Roy, T.K., & Tripathy, P.K. (2010). Inter-caste marriage in India: has it really changed over time? Paper presented at the European Population Conference, September, Vienna, Austria.

Diesendruck, G., & haLevi, H. (2006). The role of language, appearance, and culture in children's social category-based induction. *Child Development*, 77 (3), 539–553.

Dirks, N.B. (2001). *Castes of mind: Colonialism and the making of modern India*. Princeton, NJ: Princeton University Press.

Dotsch, R., Wigboldus, D.H.J., Langner, O., & van Knippenberg, A. (2008). Ethnic out-group faces are biased in the prejudiced mind. *Psychological Science*, 19 (10), 978–980.

Dunham, Y., Baron, A.S., & Banaji, M.R. (2007). Children and social groups: a developmental analysis of implicit consistency in Hispanic Americans. *Self and Identity*, 6, 238–255.

Dunham, Y., Baron, A.S., & Banaji, M.R. (2008). The development of implicit intergroup cognition. *Trends in Cognitive Sciences*, 12, 248–253.

Dunham, Y., Chen, E.E., & Banaji, M.R. (2013). Two signatures of implicit intergroup attitudes: developmental invariance and early enculturation. *Psychological Science*, 24 (6), 860–868.

Fiske, S.T., Cuddy, A.J.C., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: competence and warmth respectively follow form perceived status and competition. *Journal of Personality and Social Psychology*, 82 (6), 878–902.

Greenwald, A.G., McGhee, D.E., & Schwartz, J.L.K. (1998). Measuring individual differences in implicit cognition: the Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464–1480.

Greenwald, A.G., Nosek, B.A., & Banaji, M.R. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, 85, 197–216.

Heiphetz, L., Spelke, E.S., & Banaji, M.R. (in press). Patterns of implicit and explicit attitudes in children and adults: tests in the domain of religion. *Journal of Experimental Psychology: General*.

Herek, G.M., Gillis, J.R., & Cogan, J.C. (2009). Internalized stigma among sexual minority adults: insights from a social psychological perspective. *Journal of Counseling Psychology*, 56 (1), 32–43.

Livingston, J.D., & Boyd, J.E. (2010). Correlates and consequences of internalized stigma for people living with mental illness: a systematic review and meta-analysis. *Social Science & Medicine*, 71, 2150–2161.

Mangini, M.C., & Biederman, I. (2004). Making the ineffable explicit: estimating the information employed for face classifications. *Cognitive Science*, 28, 209–226.

Mahalingam, R. (1999). Essentialism, power and representation of caste: A developmental study. PhD dissertation. Ann Arbor, MI: University Microfilm International.

Newheiser, A., & Olson, K.R. (2012). White and Black American children's implicit intergroup bias. *Journal of Experimental Social Psychology*, 48, 264–270.

Newheiser, A., Dunham, Y., Merrill, A., Hoosain, L., & Olson, K.R. (in press). Preference for high status predicts implicit outgroup bias among children from low status. *Developmental Psychology*.

Pargament, K.I. (1997). *The psychology of religion and coping: Theory, research, practice*. New York: Guilford Press.

Pargament, K.I., Magyar, G.M., & Murray-Swank, N. (2005). The sacred and the search for significance: religion as a unique process. *Journal of Social Issues*, 61 (4), 665–687.

Park, C.L. (2005). Religion as a meaning-making framework in coping with life stress. *Journal of Social Issues*, 61 (4), 707–729.

Phinney, J. (2003). Ethnic identity and acculturation. In K. Chun, P. Ball & G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp. 63–81). Washington, DC: American Psychological Association.

Raabe, T., & Beelmann, A. (2011). Development of ethnic, racial, and national prejudice in childhood and adolescence: a multinational meta-analysis of age differences. *Child Development*, 82 (6), 1715–1737. doi: 10.1111/j.1467-8624.2011.01668.x

Rhodes, M., & Brickman, D. (2011). The influence of competition on children's social categories. *Journal of Cognition and Development*, 12 (2), 194–221.

Ruback, R.B., & Rao, V.K. (1989). Vocal indicators of status: effects of caste and language. *Psychology and Developing Societies*, 1, 177–188.

Silberman, I. (2005). Religion as a meaning system: implications for the new millennium. *Journal of Social Issues*, 61 (4), 641–663.

Thorat, S., & Newman, K.S. (2007). Caste and economic discrimination: causes, consequences, and remedies. Economic and Political Weekly, 13 October.

Tull, E.S., Sheu, Y.-T., Butler, C., & Cornelious, K. (2005). Relationships between perceived stress, coping behavior and cortisol secretion in women with high and low levels of internalized racism. *Journal of the National Medical Association*, 97 (2), 206–212.

Ysseldyk, R., Matheson, K., & Anisman, H. (2010). Religiosity as identity: toward an understanding of religion from a social identity perspective. *Personality and Social Psychology Review*, 14 (1), 60–71.

Supporting Information

Additional Supporting Information may be found in the online version of this article:

Data S1. Methods and Results.