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Implicit Intergroup Bias and the Long Road to Predicting Discrimination

Yarrow Dunham

Introduction

The study of intergroup processes begins from many places, and a diversity of approaches in both theory and method is a hallmark and strength of the literature. This chapter focuses on one more recent addition to the landscape, “implicit” or “automatic” forms of intergroup attitude. The central goals are to elucidate the gaps in prior literature that this work emerged to address, and to critically evaluate the extent to which it has been successful in doing so. As we will see, research on implicit intergroup attitudes has been a valuable supplement, but has not always accomplished all that it promised.

A recent handbook chapter (Olson & Dunham, 2010) provides a review of developmental implicit social cognition research across many areas of psychology; the focus of this chapter will be the narrower topic of implicit forms of *prejudice* (positive or negative *evaluations* of social groups or their members). Although prejudice is often linked with *stereotypes* (i.e., specific beliefs about what groups are

like), stereotypes will not be a focus here, because there is little developmental work on implicit stereotypes. A final central concept, *discrimination*, refers to positive or negative *behavior* directed at someone as a consequence of their membership in a social group.

Put simply, prejudice and stereotypes are in the head, while discrimination is out in the world. Prejudice is an individual shortcoming; discrimination is a social phenomenon that perpetuates injustice. It is natural to assume that prejudice causes discrimination, and that one reason to study prejudice is to understand how it gives rise to discrimination. However, there is surprisingly little research actually investigating the link between prejudice and discrimination, and a call for more such work will be one prescriptive upshot of this review. There is some irony in a review of implicit prejudice calling for more research on behavioral prediction given that one of the promised benefits of work on implicit social cognition is new insight into the link between prejudice and discrimination. But I argue that, at least in the developmental context, implicit social cognition research has led to broader conceptualizations of intergroup attitudes but has not demonstrated that this broader conceptualization allows us to predict discriminatory behavior more successfully.

Making the Implicit Turn

Research on implicit intergroup attitudes emerged against a voluminous body of work on intergroup attitudes more generally. That work urged several primary conclusions. First, intergroup bias, with respect to a range of social categories, is present early in development. For example, with respect to race, those in the best studied social category, White North American children, express positive views of Whites and negative views of Blacks by age 3 or 4 (reviewed in Aboud, 1988; Brand, Ruiz, & Padilla, 1974; Fishbein, 1996). Similar patterns appear with other social categories such as gender (Yee & Brown, 1994), religion (Heiphetz, Spelke, & Banaji, 2013) and nationality (Barrett, 2007). Second, these expressions of bias tend to decline as a function of age. For example, expressions of race bias are weak or even absent in White North American adolescents (Aboud, 1988).

One recent contribution to the literature has been a meta-analytic treatment of age-related change in prejudice (Raabe & Beelmann, 2011), which documented an age-related increase in prejudice between approximately 3 and 6, perhaps as social categories are acquired, followed by a gradual decline into adolescence. This descriptive clarity is valuable, but it does not uniquely support any one theoretical explanation. In particular, two broad issues loom. First, *why* does self-reported

prejudice decline so markedly, and how can the decline be reconciled with the purported continued presence of prejudice in adults? Second, does the development of self-reported prejudice, as revealed through these findings, provide insight into the development of discrimination or related phenomena such as changes in friendship patterns and school-based self-segregation?

Why do reports of prejudice decline as a function of age? One answer involves taking the decline at face value. The most influential set of views arising around this interpretation are cognitive developmental accounts, generally influenced by Piagetian stage theories (Aboud, 1988; Katz, 1983). The upshot of these views is that young children have a set of cognitive limitations that make them particularly susceptible to acquiring prejudice. For example, children may egocentrically assume their own social identities are normative or preferred, or they may rigidly apply stereotypes due to limitations in cognitive flexibility. As these limitations are gradually overcome, prejudice declines.

These views have been influential, providing a compelling account for a surprising pattern of data and moving past simplistic views of children as passive internalizers of societal ills. However, some limitations should be noted. Theoretically, many thinkers in developmental psychology no longer subscribe to broad Piagetian stages, instead arguing that development occurs in several at least partly independent domains that do not necessarily generalize widely (see Carey, 2009 for a recent review). What's more, the overall picture of cognitively limited and egocentric children has been shaken by accumulating evidence of robust abilities in the first years of life, including surprisingly sensitive perspective taking and abstract reasoning (e.g., Onishi & Baillargeon, 2005; Xu & Garcia, 2008).

More practically, can rapid decline in childhood prejudice be reconciled with persistent intergroup bias described by adult-focused social psychologists (e.g., Hewstone, Rubin, & Willis, 2002)? The primary worry is that over the same periods during which self-reported prejudice declines, children become increasingly concerned with how they are perceived by others (see, e.g., Harter, 1999). This increasing awareness will surely alight upon the fact that expressing intergroup bias is generally frowned upon, and that (at least for members of the majority) parents themselves are often uncomfortable talking about it (Hughes et al., 2006). Could children begin to censor views they know will be received with approbation? There is evidence to support this possibility. Manipulating self-focus and/or publicity of expression of race attitudes leads children as young as 6 to report less bias in the domain of race and national attitudes (Rutland, Cameron, Milne, & McGeorge, 2005), and as they enter middle childhood children become increasingly unwilling to even *mention* race, even in a wholly task-relevant context such as trying to refer to an individual (Apfelbaum, Pauker, Ambady, Sommers, & Norton, 2008). Thus, the decline in self-reported prejudice cannot necessarily be interpreted as a decline in prejudice itself.

Of course, children are not just learning that *expressing* prejudice is bad; many of them are also coming to believe that *being* prejudiced or engaging in exclusionary behavior is bad. Thus, part of the shift in self-reported bias may also reflect the adoption of an explicitly egalitarian value system, where judging others based on factors like race is morally wrong (e.g., Killen, 2007). This sort of shift might be interpretable as a genuine reduction in bias, but, again, adult social psychology suggests that things are not so simple, and that such egalitarian views can coexist with patterns of thinking that constitute a form of race bias. For example, Modern Racism Theory (McConahay, 1986) argues that an "old-fashioned" form of bigotry in which groups are explicitly disparaged has given way to a modern form of bias in which subtler political and moral views give cover or post-hoc justification for ignoring continued inequities, often beneath a veneer of "color blindness" (e.g., Apfelbaum, Norton, & Sommers, 2012).

Thus, while general cognitive maturation may well reduce bias to some extent, there are clear alternative explanations for the observed reduction, most prominently self-presentational demands and the adoption of an explicitly egalitarian veneer over subtler forms of intergroup bias. What, then, about the second issue I raised, the ability of existing self-report work to explain race-related behavior across these same ages?

Unfortunately, there is surprisingly little research on actual discrimination in children. Thus, in seeking to answer the question of whether self-reported prejudice predicts discrimination, there is less to go on than we'd like. Still, the observed trend of self-reported prejudice has difficulty accounting for observed behavioral trends. Most of the relevant work in this area focuses on race, so that will be our focus as well. Observational studies of playmate preference and related measures in preschool and early elementary aged children paint a somewhat mixed picture of whether or not race exerts a substantial influence on children's behavior. Some studies have reported predictive effects of race on free play or friendship nominations as early as preschool (Finkelstein & Haskins, 1983; Girouard, Stack, & O'Neill-Gibbert, 2011; Ramsey & Myers, 1990), but these studies also suggest that some of these early effects could be accounted for by factors correlated with, but independent of, race such as play style. Still other, primarily older studies report no effects of race on friendship profiles until the middle elementary school years (Hraba & Grant, 1970; Porter, 1971; Stevenson & Stevenson, 1960). In any case, it is clear that the most pronounced shift in association patterns occurs considerably later, over the latter half of elementary school, with the result that many pre-existing cross-group friendships disappear (Aboud, Mendelson, & Purdy, 2003; Moody 2001; Shrum, Cheek, & Hunter, 1988). Why does this shift occur just as prejudice allegedly goes into decline?

Of course, prejudice is by no means the only potential explanation for increasing school-based segregation, and the authors just cited point to factors like socioeconomic status, contact opportunities, teacher diversity, and ability-based tracking as likely contributors. Another prominent possibility is identity development. For example, in later childhood and adolescence, children, and especially nonmajority children, become increasingly interested in understanding and elaborating an ethnic identity, with a corresponding desire to associate with others who share similar identity commitments (Phinney, 1989; Quintana, 1998). Any complete treatment of ethnic preferences will have to take these aspects of social identity into account as well. Thus, the context of age-related shifts in intergroup association are complex and multifaceted, but it remains surprising that prejudice and these behavioral outcomes paint such different pictures of intergroup functioning.

It is at this point that a powerful, even paradigm-shifting body of work in social psychology enters the picture. Memory researchers were among the first to reveal a striking phenomenon: stimuli that had been previously encountered but that could not be consciously recalled could nonetheless exert an influence on other tasks, for example, by leading participants to more rapidly recognize or prefer previously encountered stimuli (e.g., Roediger, 1990). Memory could operate in an implicit, even unconscious manner and yet still be causally efficacious!

Applying these findings to the domain of intergroup attitudes, researchers raised a tantalizing if disturbing possibility: what if there is a form of prejudice that also operates outside conscious awareness, but which is able to affect other cognitive processes (for reviews, see Gawronski & Payne, 2010)? If so, the question of whether someone holds prejudice cannot, *even in principle*, be answered solely by asking (even putting aside social desirability), because they may genuinely be unaware of their own bias. There are now literally hundreds of studies confirming and elaborating this intuition, demonstrating a range of pervasive yet subtle tendencies to negatively evaluate some groups, in particular racial minority groups in the United States. This implicit form of prejudice is only weakly correlated with self-reported prejudice (Nosek, 2007), suggesting an at least largely distinct cognitive construct. The rise of implicit social cognition ushered in a new perspective on predicting behavior: Some behaviors stem from explicit beliefs, but others, especially subtler forms such as body language, are more closely related to implicit bias (Dovidio, Kawakami, & Gaertner, 2002). While it took some time to penetrate developmental research, there is now a growing body of work seeking to understand the developmental origins of implicit prejudice. The next sections summarize this work and suggest that two primary "ingredients" can account for observed developmental trajectories.

The First Ingredient: Mere Membership

Most social and cognitive psychologists studying implicit social cognition had argued—or at least assumed—that phenomena such as implicit prejudice emerged gradually through a “slow learning” internalization of statistical regularities in the environment (e.g., Greenwald & Banaji, 1995; Smith & DeCoster, 2000). For example, perhaps repeated exposure to negative portrayals of some racial groups creates a subtle, introspectively inaccessible negative association with those groups. Such biases could coexist with the honest and explicit endorsement of egalitarian views, leading to implicit and explicit attitudes that are inconsistent. Note that this account of implicit bias makes clear developmental predictions: Young children should show little or no implicit bias, and should gradually acquire such bias as the relevant social information is encountered and internalized over development. It was against this backdrop that the first studies exploring implicit intergroup bias in children began to emerge.

Early studies on the development of implicit intergroup bias focused on majority children in the United States, Japan, and the United Kingdom, and employed the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). Because it features prominently, it is worth briefly reviewing the IAT. Conceptually, imagine sorting a standard deck of cards into two piles, one of hearts and diamonds and the other of spades and clubs. This would be easy. But consider a second task, in which one pile consists of hearts and spades, the other diamonds and clubs. This would be more difficult and, if you hurried, you'd be prone to errors. The reason why is intuitive enough. In the first case, it is easy to subsume the two red and two black suits into single categories based on color, while, in the second case, you must carefully consider all four suits. The IAT shares this logic. Participants rapidly categorize stimuli from two different pairs of categories using only two response keys. In a standard race IAT, members of two racial groups (photographs or names of Black and White people) are categorized in alternation with positive and negative adjectives. In one condition, White faces are paired with positive words and Black faces with negative words; in a second (counterbalanced) condition, White faces are paired with negative words and Black faces with positive words. If a participant has relatively more positive associations with one group than the other, these two conditions will differ in difficulty. The speed advantage in one condition over the other serves as an individual difference index of implicit intergroup bias.

As noted above, an initial assumption was that implicit prejudice emerged gradually as cultural values were internalized. However, this early prediction was not supported. In the domain of race, the first inquiry (Rutland et al., 2005) revealed that White 6-year-olds in the United Kingdom showed a degree of implicit preference for White over Black that did not differ from 10-year-olds. Later work

replicated this “age invariance” in the United States, revealing that White American 6-year-olds showed a level of bias that did not differ from adults (Baron & Banaji, 2006; Dunham, Baron, & Banaji, 2006). Furthermore, native Japanese children showed a similar pattern, preferring their racial in-group from the youngest ages tested and showing only modest evidence of age-related change. Other recent studies have demonstrated implicit in-group preference in other domains, including religion (Heiphetz et al., 2013) and nationality (Rutland et al., 2005).

Might these findings, beginning as they do in 6-year-olds, be missing a more dynamic period of attitude consolidation in younger children? A more recent and larger scale investigation suggests not; including children as young as 3, and thereby a number of children who did not yet understand race as a means of classifying people, still produced age invariance: White American 3–4-year-olds showed a form of implicit bias that was every bit as strong as that shown by adults (in this case, categorizing more angry as opposed to happy faces into the racial out-group). This pattern also generalized beyond the U.S. context. For example, Taiwanese children showed Taiwanese-over-White implicit preference of similar magnitude (Dunham, Chen, & Banaji, 2013).

How is it that young children, even children so young as to have only recently acquired race bias, can show implicit intergroup attitudes every bit as strong as adults? These findings are surprising because they speak against the assumption that preferring one group to another is the result of having *learned* that one group is better than another. But social psychologists have long known that there are other routes to intergroup bias. Most notably, a large body of work with the so-called “Minimal Groups Paradigm” demonstrates that older children and adults show preferences for groups that were previously unfamiliar and that were of little prior or intrinsic importance (Brewer, 1979; Tajfel, 1970). The upshot of this work is that *merely belonging to a group* is, at least in some cases, enough to induce prejudice. Could the early emergence of both implicit and explicit intergroup bias, described in the prior studies, be the consequence of this more automatic affiliation with in-groups?

Two substantial series of studies, while focusing on self-reported measures, provide strong reasons to think the answer could be yes. In a paradigm developed by Bigler and colleagues, children in school settings are assigned to groups based on shirt colors, and wear shirts of their assigned colors on a daily basis. When teachers and other school staff ignored the groups, evidence for bias was weak, but when linked to positive outcomes or being used to organize classroom activities, intergroup bias robustly appeared (Bigler, Jones, & Lobliner, 1997; Bigler, Spears, Brown, & Markell, 2001; Patterson & Bigler, 2006). A second body of work by Nesdale and colleagues also assigned children to previously unfamiliar novel groups, and also showed that children rapidly affiliate with such groups, though they

remain sensitive to features of the groups such as status and ethnic make-up (Nesdale & Flessler, 2001; Nesdale, Griffith, Durkin, & Maass, 2007; Nesdale, Maass, Griffiths, & Durkin, 2003).

Do such findings extend to implicit forms of measurement? The answer here is also a clear “yes”; children randomly assigned to groups based on t-shirt color showed strong implicit in-group bias on the IAT (Dunham, Baron, & Carey, 2011) as well as on a form of evaluative priming (Dunham & Emory, 2014). A simple heuristic that allows us to summarize these broad results is that in-groups are automatically preferred, and thus that bias towards real world groups is, in some cases, merely the specific instantiation of this more general tendency (for some elaboration of this argument, see Dunham, 2011). The first ingredient for implicit prejudice, then, is not biased social information, but rather mere membership in a social collective.

The Second Ingredient: Status Awareness

Some readers will have noted a major omission in the preceding discussion, namely that it has focused on majority or culturally high-status children. White American and British children show implicit in-group bias in favor of their own group over racial out-groups. But what about children who are not members of a privileged majority? When a member of a dominant cultural majority shows preference for his/her own group, a preference for high status and a preference for the in-group are confounded, both pointing in the direction of in-group preference. The findings with minimal groups demonstrate that status differences are not necessary for the production of social preference, but status could nonetheless be a major contributor to the bias described in the preceding section. Status and membership can be unconfounded by focusing on non-majority groups, and adult research has shown that members of racial and ethnic minorities in the United States, as well as members of sexual minorities and some other disparate but potentially stigmatized groups such as the elderly or the obese, do not show implicit preference for their own group, instead showing either a population-level neutrality or even an implicit preference for the higher status out-group (Nosek, Banaji, & Greenwald, 2002; Nosek et al., 2007).

How do children progress towards this adult pattern? The first study of this sort focused on Latino American children, and examined their implicit Latino-over-White and Latino-over-Black preference between the ages of 5 and 12 as well as a comparison sample of adults (Dunham, Baron, & Banaji, 2007). The primary finding with respect to Latino-over-White implicit bias was that there was little or

no age-related change, and that the mean pattern was no implicit preference in either direction. That is, the adult pattern of implicit attitudinal neutrality was present in the youngest children tested. By contrast, when comparing their own group to another minority (Black), children showed the familiar pattern from prior work on implicit race attitudes, namely robust and developmentally stable preference for the racial in-group. More recently, it has been shown that Black children also show a largely age-invariant pattern of implicit attitudinal neutrality, whether measured with the IAT (Newheiser & Olson, 2012) or the angry faces task (Dunham, Chen et al., 2013). Furthermore, a series of recent studies explored the implicit racial evaluations of non-White children in South Africa (Dunham, Newheiser, Hoosain, Merrill, & Olson, 2014; Newheiser, Dunham, Merrill, Hoosain, & Olson, 2014), who are subject to a dramatically more powerful degree of class and status disparity. Supporting the notion that these disparities are directly encoded in implicit attitudes, Black and Colored children in South Africa implicitly evaluated White more positively than their own group, and indeed appeared to mirror the broader status hierarchy in which White > Colored > Black. As before, there was little evidence of age-related change. These findings are not restricted to race. For example, children of varying positions along the Hindu caste hierarchy nonetheless showed implicit preference for high caste over low caste on both the IAT and a more projective measure of social attitudes involving expectations regarding the appearance of in-group and out-group faces (Dunham, Srinivasan, Dostch, & Barner, 2014).

These findings suggest that children's early attention to social status is a second key ingredient producing implicit intergroup evaluations. Indeed, this second ingredient is capable of canceling out or even reversing the tendency towards implicit in-group preference described previously. The lack of age-related change demonstrates that it too occurs from quite early in development and is not a temporally subsequent process. Rather, groups are recognized as in-groups but also as high- or low-status seemingly from their initial apprehension.

Membership and status are very different sorts of things. A child can understand that s/he belongs to a group without knowing very much about the group (perhaps without knowing anything at all beyond the label that picks out group membership: Hirschfeld, 1998), and adults do explicitly label their children by group membership, at least some of the time, and at least for some affiliations. But understanding the consensual social status accorded a particular group is a more complex affair. How do children—and young children at that—identify status? What cues do they attend to? Research is only just beginning to tackle this question, but some promising directions have emerged. First, for members of lower status groups, two investigations, one with Black children in the US and another with Black children in South Africa, have found that children's self-reported preference for wealth predicts

their implicit preference for a higher status out-group (Newheiser & Olson, 2012; Newheiser et al., 2014). This suggests that one input into status awareness are the readily available and socially salient cues to wealth that surround us and that, unfortunately, are frequently correlated with group membership (see also Horwitz, Shutts, & Olson, 2014).

There are also examples in which the expected status effect does not emerge. In a region of India with a large and high-status Hindu majority, Muslim minority children nonetheless showed implicit pro-Muslim attitudes just as strong as the Hindu majority (Dunham, Srinivasan et al., 2014). Similarly, girls remain more implicitly positive towards their own gender than do boys (Dunham, Baron, & Banaji, 2015), suggesting that something about these identities plays a protective role, preserving implicit in-group favoritism in the face of salient status disparities. Future work will be needed to explore why some groups function differently in this way.

Caveats and Complications

The preceding two sections have distilled the emergence of implicit intergroup bias down to the action of two key “ingredients,” namely a tendency to prefer in-groups and a tendency to prefer higher status groups. Interestingly, despite the seeming independence of implicit and explicit forms of prejudice, these factors have also emerged as central contributors to explicit forms of bias (e.g., Bigler et al., 2001; Nesdale & Flesser, 2001). Still, it is important to emphasize that this effort to explain broad trends via two central factors should not be taken to imply that other factors, and in particular richer forms of social and cultural experience, are not important. Surely they are. Nonetheless, science progresses by noting generalities that are capable of predicting more specific patterns, and the ones described here fit this bill: If you know whether children belong to a given group, and if you know the status relationships that group figures in, you will generally do a pretty good job predicting the mean level of implicit bias in those children. Even so, the goal of this section is to highlight additional considerations that are not captured in that simple picture.

First, all work to date is cross-sectional. This places an important caveat on how we interpret the data, and in particular the repeated observation of “age invariance” taken to indicate the rapid fixation of implicit prejudice. Absent longitudinal data, it is wholly possible that age invariance describes the population mean but not the trajectory of many individual children. That is, many individual children could show pronounced change in implicit prejudice, but, if as many children

move upward as downward, the mean-level pattern would remain a flat line. Despite its difficulty and expense, a longitudinal inquiry will be essential to confirming prevailing interpretations. In very similar spirit, most work to date focuses on main effects or population differences; very few studies explore individual differences factors that might relate to the strength of implicit preferences (e.g., Dunham et al., 2014; Newheiser & Olson, 2012; Newheiser et al., 2014).

Second, the data to date has relied predominately on the IAT (for a broader discussion of various implicit measures, see Fazio & Olson, 2003). The IAT is the most popular measure of implicit social cognition and has a number of strengths including flexibility, ease of use, and the production of large effects—but it has also been a frequent target of criticism (e.g., Arkes & Tetlock, 2004; Blanton et al., 2009; Rothermund & Wentura, 2004). Even putting aside these debates, it has two features that constrain the interpretations we can draw from it. First, it is a relative measure, meaning it is difficult or impossible to separate in-group positivity from out-group negativity (but see Conrey, Sherman, Gawronski, Hugenberg, & Groom, 2005; Dunham et al., 2015), a distinction long recognized as important (Aboud, 2003; Brewer, 1999; Cameron, Alvarez, Ruble, & Fuligni, 2001). Other implicit measures, including single-category variants of the IAT (Karpinski & Steinman, 2006), the Affect Misattribution Procedure (Payne, Cheng, Govorun, & Stewart, 2005), and evaluative priming (Hermans, De Houwer, & Eelen, 1994) allow these two components of prejudice to be dissociated.

A second critical feature of the IAT is that it involves the explicit use of categories. That is, completing the IAT *requires* attending to and making use of the categories in question (e.g., by explicitly categorizing faces by race). Some other measures, such as evaluative priming, involve measuring subtle responses to individuals who are incidentally presented, but who happen to belong to a social category of interest. This difference is important, because we do not always make use of every available means of categorizing someone. That is, we may hold a particular prejudice but not draw upon it, for example because we are thinking of other things, other social identities are more salient, or because we are not so good at picking out category members in the first place (e.g., Gilbert & Hixon, 1991). Thus, the IAT measures evaluations of categories, but *does not* measure our tendency to draw on those categories outside the context of the task (for further discussion, see Dunham & Degner, 2013). This appears to matter: In one inquiry focusing on ethnic attitudes in Europe, implicit prejudice appeared on the IAT several years prior to appearing on evaluative priming (Degner & Wentura, 2010), and this may be true with respect to race in the US as well (Dunham, 2015). Thus, a critical task for future researchers is to use a wider range of measures and to map results from those measures onto underlying cognitive constructs.

One final issue harkens back to an original motivation for incorporating implicit prejudice research into our developmental understanding, namely forging stronger links between prejudice and discrimination. However, success here remains limited. The conclusion from the work described above is that young children—in addition to reporting large amounts of prejudice—also show implicit forms of bias as strong as those seen in adults. Overall, then, young children appear to be *more prejudiced* when reporting bias, and *equally prejudiced* on implicit measures. And yet these children appear to be less biased in terms of their behavior (e.g., their racial association patterns) than are older children. This remains an important puzzle in the literature.

Concluding Remarks: Where To Go From Here

As with adult-focused research, the study of implicit prejudice in children has broadened our conceptualization of intergroup bias, forcing us to recognize that verbal reports do not exhaust, and may even obscure, some aspects of the prejudice. It has further suggested that implicit forms of bias can emerge rapidly and powerfully, even as the mere consequence of recognizing a social group to which one belongs. This work has created important continuity between social and developmental fields and has contributed to theorizing as to the origin and nature of implicit attitudes (Dunham, Baron, & Banaji, 2008; Dunham & Olson, 2008). It has also pointed to a need to widen our methodological toolkit to include measures of implicit or automatic prejudice as well as more traditional self-report instruments. But these findings are dispiriting in some respects, as they show that implicit prejudice can emerge in the absence of positive or negative characterizations of the groups, and therefore that “de-biasing” children will not be as simple as de-biasing the input.

In many respects, however, this work is still in its infancy. Building on the caveats described above, I highlight two primary areas in need of future work. First, it is critical to understand how status is inferred from patterns of group difference. What cues are available to even a very young child that allow him or her to infer that an entire social collective is of lower status than some other group? And what features of early experience, or of the groups themselves, can arrest the tendency to internalize potentially harmful or stigmatizing status disparities?

A second area is somewhat more complex, and concerns the interplay between measures of implicit prejudice, the cognitive processes they tap into, and the prediction of behavior. The IAT appears to capture broad group evaluations. But perhaps one reason those evaluations are only weakly linked to behavior is that most behavioral contexts are much more complex than their laboratory analogs. The potential interaction partner in front of me may belong to a particular (e.g.) ethnic

group, but they also belong to a racial group and a national group; they have various preferences and mannerism of which I am aware, we may have a particular history of interaction, and so on. In the midst of all that, when does a *particular* social group membership (such as in a racial category) become impactful to a social perceiver (for discussion bearing on the complexity of these self- and other-categorizations, see Linville, 1985; Roccas & Brewer, 2002)? The broader literature has underemphasized these processes, too hastily concluding that results from measures that make a given dimension of categorization salient will apply to contexts in which that dimension is not so salient.

One recent theoretical account, Developmental Intergroup Theory (DIT; Bigler & Liben, 2007), provides a promising framework for thinking about these issues. DIT separates the processes by which a potential dimension of categorization becomes culturally salient from the process of categorizing an individual along that dimension. While it is a promising start, DIT is still relatively silent on what specific factors influence the in-the-moment decision to categorize (or not) along a given dimension (but for relevant considerations see Oakes, 1987). Numerous contextual and individual features will likely be involved here, including a number of the same features that establish a category's more general psychological salience. Thus, while much excellent work has focused on category acquisition and prejudice acquisition, if we want to understand how prejudice influences behavior we will need to devote as much effort to understanding how and when those categories, and thereby that prejudice, is actually engaged in the midst of complex social interactions, and we will need to actually take the challenging step of measuring real-world behavior.

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11

The Development of Racial Categorization in Childhood

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One of the most important and complex responsibilities that young children have is to make sense of their social world. From a very young age it would seem that children do this, at least in part, by parsing those around them into groups through a process of social categorization. Children demonstrate the ability to group people based on race early in development, but when does this categorization influence attitudes, beliefs, and behavior? In this chapter we review what is known about the development of racial categorization in childhood, and consider when and for whom racial categorization leads to racial stereotyping and prejudice.

Social and developmental psychologists have worked for decades to better understand the causes and consequences of stereotyping and prejudice in childhood (see Levy & Killen, 2008, for a review). A main focus of this vast literature has been on *racial prejudice*, which we define as negative evaluations of other people based on their race. Researchers have also examined *racial stereotypes*, defined as cognitive structures composed of consensual knowledge, beliefs, and expectations about members of specific racial groups (Pauker, Ambady, & Apfelbaum, 2010). In this chapter, we focus on two main questions that have emerged from this vast