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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

literature: When and how do racial stereotypes and prejudice develop? And what factors affect, and specifically reduce, the acquisition and expression of racial bias in childhood?

To answer these questions, we take as a starting point the Developmental Intergroup Theory (DIT) put forth by Bigler and Liben (2006, 2007), which focuses largely on the contextual nature of children's intergroup biases, and the role of social categorization in shaping these biases. According to this theory, stereotyping and prejudice towards out-groups can develop when (1) groups are psychologically salient and (2) children begin to categorize others by these salient group dimensions. They propose that the act of categorizing others along a salient dimension, such as race, can initiate a process that results in the development of stereotypes and prejudice. This sequence of events, where psychologically salient groups are used as a basis for social categorization and ensuing intergroup cognitions and attitudes, has received a good deal of empirical support, particularly from studies that make use of minimal group paradigms (see Bigler & Liben, 2007, for a review).

Building on this theory, in this chapter we aim to first briefly explain what we know about when and how racial categorization and racial prejudice emerge, spanning from infancy into preadolescence. Second, we describe two key factors that have been found to impact the acquisition and/or expression of racial stereotyping and bias: essentialism and social norms. Finally, we conclude by outlining some of the limitations of our current understanding of racial categorization, stereotyping, and prejudice in childhood, and describe what we believe are important directions for future research.

Racial Categorization and the Emergence of Prejudice

According to the DIT, in order for stereotypes and prejudice to develop, a social group (e.g., race, gender) must be psychologically salient and children must subsequently use this dimension as a basis for social categorization. Importantly, Bigler and Liben (2006, 2007) argue that humans have evolved such that there is a tremendous amount of flexibility in the dimensions that can become psychologically salient. Given this flexibility, one important question to consider is why children attend to race, as opposed to other dimensions such as eye color or height? According to the DIT, there are four main factors that help to explain why some person attributes are more likely than others to become psychologically salient and used as a basis for social categorization in childhood (Bigler & Liben, 2006, 2007). The first is the proportional size of the group. Social groups that are proportionately smaller

(e.g., racial minority groups) are more distinct, particularly in comparison to proportionally larger groups (e.g., majority groups). The second is the extent to which adults explicitly label and make use of social categories. Actively labeling groups can suggest to children that this dimension is worthy of attention. This information can also be conveyed implicitly when social grouping exists (e.g., in cases of segregation). The implicit use of social categories is, therefore, a third factor that can increase the psychological salience of specific attributes. In the absence of explanation, children may come up with their own explanation to justify the observed social divisions, such as inferring that the shared attributes (e.g., race) must reflect important and inherent differences. A fourth and final factor that contributes to the psychological salience of person attributes outlined by the DIT is perceptual discriminability. Attributes that are perceptually salient, or easy to differentiate based on visual cues (e.g., gender, race), are more likely to be used by children as the basis of social categorization than attributes that are less salient (e.g., religion, political affiliation). Importantly, Bigler and Liben (2007) argue that perceptual salience alone is insufficient to trigger psychological salience. For example, other attributes, such as shirt color, are *perceptually* salient to children (i.e., they can easily pick out those wearing blue or red), but they are not normally the basis for categorization and ensuing stereotyping and prejudice, unless combined with other factors that support their *psychological* salience (e.g., explicitly labeling them as the Blue or Red group).

Perceptual salience is a particularly noteworthy factor when discussing the acquisition of racial stereotypes and prejudice. Race is perceptually salient to children early in development (see below), but this should not be confused with psychological salience. A child may innocently comment, "Mommy, that man's skin is brown," but making note of this difference may not mean the same thing for the child and the adult. The child may simply be commenting on a perceptual difference, while the adult may attach the psychological weight of the category and its associated content (e.g., "my child is starting to stereotype!"). Thus, the adult lay public (and researchers) should be careful not to that attribute psychological salience to situations (and data) that only speak to perceptual salience of an attribute.

Consistent with this idea is the possibility that race is perceptually (although likely not psychologically) salient in infancy. By 3 months of age African, Chinese, and White infants are able to distinguish between own-race and other-race faces and demonstrate a preference for the familiar in-group by looking longer at own-race faces (e.g., Bar-Haim, Ziv, Lamy, & Hodes, 2006; Kelly, Liu et al., 2007). Over the next 6 months, this visual preference for own-race faces becomes solidified into robust recognition biases that favor the racial in-group (e.g., Kelly, Quinn et al., 2007). However, there is some reason to suspect that preferential looking at own-race faces in infancy is due to infants' greater expertise in processing familiar

(i.e., own-race) faces, as opposed to an emerging attitudinal preference. Infants who have increased exposure to and familiarization with other-race faces do not demonstrate preferential looking at own-race faces (Bar-Haim et al., 2006; Gaither, Pauker, & Johnson, 2012). Further, older infants do not appear to use race to guide their behavior. When offered a toy by a Black or White actor, White 10-month-old infants were equally likely to select toys offered by an own- or other-race actor (Kinzler & Spelke, 2011). Taken together these studies suggest that, at least among infants with limited cross-race exposure, race may be perceptually salient and used to some extent as a basis for social categorization. However, it seems likely that the psychological salience of race, and the ensuing use of race as a consistent basis for social categorization, is still quite fluid and context-dependent in infancy (see also Pauker, Williams, & Steele, 2016), and that racial stereotypes and/or prejudiced attitudes have not yet been acquired.

By 3 to 4 years of age, children begin to show some consistency in their ability to categorize themselves and others based on race (Aboud, 1988, 2003), and pre-schoolers, particularly those in high-status majority groups, begin to express greater positivity towards own-race as opposed to other-race others (e.g., Aboud, 2003; Cameron, Alvarez, Ruble, & Fuligni, 2001). Importantly, preschoolers do not appear to exhibit out-group negativity. Although out-group negativity appears on measures that contrast two racial groups (the in-group and an out-group), it does not always occur at this age when researchers use measures that decouple in-group positivity from out-group negativity (Cameron et al., 2001). Despite exhibiting some forms of racial bias on measures that clearly make race psychologically salient (e.g., through explicit labeling or implicit use of race), there is evidence that race is not consistently used by preschoolers to guide their behavior. For example, Kinzler and Spelke (2011) found that 2- to 3-year-olds did not differ in their allocation of toys to own- or other-race actors. Similarly, Shutts, Roben, and Spelke (2013) found that 3- to 4-year-olds did not select own- over other-race children as friends. This is not to suggest that at this age children are unable to categorize others into social groups and demonstrate ensuing biases. Shutts and her colleagues have found that preschoolers demonstrate strong gender biases in friendship selections (Shutts et al., 2013) and that they choose activities endorsed by someone of the same gender and same age, rather than the same race (Shutts, Banaji, & Spelke, 2010). These findings suggest that, for preschoolers, social categories other than race, such as gender and age, are more psychologically salient or at least more likely to guide their behaviors.

In early childhood (5–7 years) racial categories begin to more consistently affect children's attitudes. At this age majority children, such as White Americans, reliably express strong explicit racial biases that favor the in-group relative to lower status

and/or visible minority out-groups (see Raabe & Beelmann, 2011, for a review). There is also robust evidence of implicit (automatically activated) racial biases among White children starting as young as 6 years (see Dunham, Baron, & Banaji, 2008, for a review). Both implicit and explicit attitudes at this age seem to reflect positive associations with racial in-groups and high-status groups as opposed to negativity towards racial out-groups (Aboud, 2003; Dunham et al., 2008; Nesdale, 2004; Williams, Steele, & Durante, 2012). Overall, in early childhood the expression of intergroup biases have been found under conditions *where race is made psychologically salient* in the task— either through explicit labeling (Aboud, 2003) or implicit cues (Williams, Steele, & Durante, 2012). Although there is evidence from sorting tasks that race becomes increasingly psychologically salient around 6 to 7 years (Pauker et al., 2010), other social categories, such as gender or accent, may still be prioritized in early childhood (Kinzler, Shutts, & Correll, 2010; Lipman, Steele, & Williams, 2013).

By middle childhood (8–10 years), children exhibit a marked decrease in their racial biases and are *less* likely to report intergroup bias on explicit measures (Raabe & Beelmann, 2011). This decrease appears to be a function of (1) social-cognitive development that decreases the psychological salience of racial categories and/or (2) self-presentation concerns stemming from an increased awareness of egalitarian social norms. In addition to a marked decrease in the expression of *explicit* racial bias, preliminary evidence also suggests a lack of *implicit* racial bias in middle childhood when the task does not require target faces to be categorized by race (Degner & Wentura, 2010; Williams, Steele, & Durante, 2012). This work suggests that children at this age may be less likely to spontaneously activate racial biases when viewing racial exemplars. However, in line with the DIT, when using a comparative categorical measure of implicit bias, where target faces are categorized by race throughout the task (hence, making race psychologically salient), children at this age show implicit racial biases favoring in-groups and high-status groups (see Dunham et al., 2008, for a review).

Somewhat paradoxically in light of evidence that prejudice is less pronounced in middle childhood relative to early childhood, around this age children begin to demonstrate increasingly biased *behavior* toward cross-race peers. For example, as children transition from middle childhood to preadolescence (11–12 years), cross-race friendships become less stable (Aboud, Mendelson, & Purdy, 2003; Jugert, Noack, & Rutland, 2013) and children begin to self-segregate on the basis of race, a trend that continues into adolescence (Shrum, Cheek, & Hunter, 1988). It is possible that the process of identity formation in preadolescence may again heighten the psychological salience of race (Nesdale, 2004) and increase the regularity with which children use race to guide their behavior. Race is theorized to

take on more meaning throughout preadolescence, as individuals start to formulate their group identity (e.g., Nesdale, 2004). Indeed, recent evidence from Europe supports the possibility that race becomes increasingly psychologically salient in the pre-adolescent years. For example, in a who-said-what paradigm, 11- and 12-year-olds used race to process information to a greater extent than did 9- and 10-year-olds, suggesting that the spontaneous use of racial categories differs in middle childhood versus preadolescence (Degner & Wentura, 2010). Moreover, the spontaneous use of race in person perception as measured by the who-said-what task was related to increased implicit bias on a task that assesses attitudes toward racial exemplars in the absence of categorization (Degner & Wentura, 2010), suggesting that, as attention to race increases, so does the spontaneous activation of race-based evaluations. This increase in psychological salience in turn guides the automatic activation of race-related information (e.g., prejudice and stereotypes) when preadolescents are presented with individual racial out-group members.

To summarize, children's early emerging ability to visually discriminate on the basis of race can ultimately contribute to the psychological salience of race. However, it is not typically until early childhood that intergroup biases are expressed (Raabe & Beelmann, 2010) and, even then, biases are measured with tasks that typically make race psychological salient. The expression of explicit racial attitudes wanes in middle childhood, somewhat paradoxically given the increasing tendency for race to influence behavior at this age (e.g., the tendency to self-segregate; Jugert et al., 2013), but then seems to re-emerge, at least for some, in adolescence and into adulthood. One question to emerge from this review is: What factors impact whether racial stereotypes and prejudice are acquired and expressed?

Factors Impacting the Acquisition and Expression of Bias: Essentialism and Social Norms

While a variety of factors that influence the development of stereotyping and prejudice in childhood have been examined by researchers across the years, in this section we review two factors that have received increasing empirical support in recent years: social essentialism and social norms. Social essentialism provides insight into how and when racial categories take on a deeper meaning that might affect the acquisition of racial stereotypes and prejudice, whereas social norms constrain when and whether those category-based racial judgments and evaluations are acquired and applied.

Social essentialism

According to the DIT, children categorize others along psychologically salient dimensions, and this process of categorization can initiate the formation of stereotypes and prejudice. This theory outlined four main factors that can influence the development of stereotypes and prejudice towards psychologically salient social groups: in-group bias, explicit attributions in the environment, implicit group/attribute covariation, and essentialism (Bigler & Liben, 2006, 2007). Although the first three factors outlined in the DIT are not any less important, in this chapter we review the literature examining social essentialism.

Essentialist thinking—the tendency to think of categories as immutable and inductively powerful—is grounded in the belief that certain categories have important underlying essences that define their nature and properties (Gelman, 2003). People frequently construe race in terms of one or more components that support essentialist thinking, such as viewing race as biologically based, a natural kind that is reflective of an objective category marked by discrete features, immutable, or ascribing inherent meaning to an entire category on the basis of physical characteristics associated with racial groups (i.e., inductive potential; Rothbart & Taylor, 1992). Research suggests that people who essentialize race have a very different cognitive representation of race compared to those who do not: they construe racial groups as fundamentally different and believe that surface-level attributes (e.g., skin color) correspond to deeper underlying differences. Because essentialist thinking among adults leads to exaggerating perceived differences between groups (Rothbart & Taylor, 1992; Yzerbyt, Corneille, & Estrada, 2001) and attributing explanations for behavior to stable internal causes rather than external situational causes (Levy, Stroessner, & Dweck, 1998), essentialism is proposed to be one cognitive mechanism that underlies stereotyping and prejudice.

Developmental work on psychological essentialism has demonstrated that children exhibit essentialist thinking about animal species (Gelman, 2003) as well as social categories such as race and gender (Hirschfeld, 1995; Rhodes & Gelman, 2009) as early as 4 years of age. Such essentialist thinking can help children learn how to distinguish between and identify the properties associated with different natural kinds (e.g., "this is a lion"; "that is a tiger"). However, this essentialist thinking can become problematic when applied to social categories. Research with adults (see Prentice & Miller, 2007, for a review) has demonstrated the myriad of ways in which essentialist thinking more broadly, and about race specifically, can lead to racial prejudice (e.g., Keller, 2005; Leyens et al., 2003) and stereotyping (e.g., Levy et al., 1998; Yzerbyt et al., 2001). For example, Levy and colleagues (1998) measured the extent to which individuals thought that human traits were fixed versus malleable. Participants who essentialized human traits (i.e., thought of

them as fixed and immutable) *endorsed* racial stereotypes to a greater degree, compared to those who did not essentialize human traits, despite the fact that both groups were equally aware of the stereotypes. In a subsequent study, Levy and colleagues manipulated the extent to which individuals essentialized human traits and found that essentialist thinking causally influenced stereotype endorsement.

With regard to essentialist thinking about race specifically, M. J. Williams and Eberhardt (2008) manipulated the extent to which adults viewed race as biologically based (one component of essentialism) or as a social construct. Those exposed to a biological, essentialized view of race were less concerned and upset by racial inequities, and also less willing to interact with a racial out-group compared to an in-group member. Given the role that essentialist thinking plays in adult intergroup processes, uncovering when children start to essentialize race—a key factor proposed to guide stereotyping and prejudice acquisition (Bigler & Liben, 2006, 2007)—can provide insight into when racial categorization moves beyond simply a method for organizing the social world to the acquisition of beliefs that readily support stereotyping and prejudice.

In pioneering research on the development of social essentialism, Hirschfeld (1995) argued that children have a biologically grounded, adult-like theory of race as early as preschool. However, recent research presents a more complicated picture. The emergence of race essentialism varies with the task (e.g., Giménez & Harris, 2002; Kinzler & Dautel, 2012), the component of essentialism assessed (e.g., immutability), and the cultural context (Diesendruck, Goldfein-Elbaz, Rhodes, Gelman, & Neumark, 2013; Rhodes & Gelman, 2009). This raises the question of how to best determine when the *majority* of children essentialize race.

On tasks that measure the immutability component of race essentialism, the empirical evidence suggests that the majority of children exhibit essentialist thinking around 5 or 6 years of age (Giménez & Harris, 2002; Pauker et al., 2010). However, even this conclusion is qualified. When White American 5- to 6-year-olds were asked to identify which of two adults a child would grow up to be, they more often chose an adult who spoke the same language (but differed in race) rather than an adult who was the same race (but spoke a different language). On the other hand, 5- to 6-year-old Black American children picked race stability over language stability (Kinzler & Dautel, 2012). This suggests that judgments about the stability or immutability of race, even among children 5 to 6 years of age, are somewhat fragile and can depend on what other attributes are psychologically salient, or on differences in how individuals construe their own group membership (i.e., race is a more central and important identity for Black than White American children).

When examining the inductive potential component of essentialism, or the extent to which children use social categories to draw broad inferences about similarities

in attributes or behaviors to other category members (e.g., "likes the same novel activities"), children are seen to readily do so at 5 years of age based on social categories akin to race, such as ethnicity (Birnbaum, Deeb, Segall, Ben-Eliyahu, & Diesendruck, 2010; Diesendruck & HaLevi, 2006). Specifically, for 5-year-olds ethnicity had greater inductive potential than gender, social status, or other physical appearance traits (e.g., tall vs. short). However, this effect largely depends on the use of category labels. In these studies, when visual markers of the category (i.e., perceptual salience) were removed, but the ethnic categories were still verbally labeled (i.e., explicit use), children continued to draw inferences about category members of the same ethnicity (Diesendruck & HaLevi, 2006). By contrast, when visual markers of ethnicity remained, but the ethnic categories were not labeled, children no longer drew inferences based on ethnicity (Birnbaum et al., 2010). Thus, consistent with the DIT, explicit labels appear to play a clear role in marking which groupings are psychologically salient to children, and may play a greater role in perpetuating broad inferences about a category (i.e., stereotyping) than perceptual salience alone. As outlined by the DIT, one potential explanation for these findings is that factors including explicit labeling and perceptual salience directly impact a social category's psychological salience, a precondition to essentialism, rather than having a direct impact on essentialism.

Other components of essentialism, such as believing that racial groups are distinct natural kinds, seem to emerge much later and depend heavily on cultural influences. Research that examines the extent to which children view social categories as natural kinds (i.e., racial categories reflect natural divisions marked by discrete features) suggests that younger children (5- and 7-year-olds) do not construe race as a natural kind, but that older children (10- and 17-year-olds) in a more racially homogeneous community do (Rhodes & Gelman, 2009). Interestingly, this effect is mitigated in more diverse contexts; older children and teenagers raised in more racially diverse communities *did not* view race as a natural kind (Rhodes & Gelman, 2009). Finally, the extent to which children prioritize specific social categories as a natural kind varies across cultural contexts and with age. In a cross-cultural study comparing children in the United States and Israel, Diesendruck and colleagues (2013) found that American children viewed race (i.e., White and Black) and ethnicity (i.e., Arab and Jewish) as more of a natural kind with age, whereas children in Israel viewed *race* as less of a natural kind with age but consistently viewed *ethnicity* as a natural kind starting as young as 5 years of age. Thus, in line with the DIT, the social categories that children tend to essentialize can depend on cultural input. One important implication of this work is that it highlights variability in children's tendency to essentialize race based on different environmental contexts. Thus, there may be contexts (e.g., more racially diverse contexts) that can successfully mitigate or at least reduce essentialist thinking about race.

One important question to emerge from these findings is: Does variation in essentialist thinking relate to the acquisition of stereotyping and prejudice *in children* as predicted by the DIT? While there is substantial evidence for the connection between race essentialism, stereotyping, and prejudice in adults, surprisingly few researchers have examined the social consequences of essentialist thinking in children. Individuals who hold essentialist beliefs view a category as more meaningful, predictive, and indicative of fundamental differences. This view then provides an interpretive framework for all other behaviors and attributes associated with the category. Thus, children who essentialize race should be motivated to seek out and pay attention to attributes and behaviors associated with race (Bigler & Liben, 2006, 2007). Early work with Black children found a positive relationship between essentialist thinking (specifically among measures of immutability) and in-group bias (Semaj, 1980). More recently, Levy and Dweck (1999) found in an ethnically diverse sample that children who believed in the immutability of human traits were more likely to stereotype novel groups. Similarly, Rutland, Cameron, Bennett and Ferrell (2005) found that White children who believed that race was immutable and stable exhibited more intergroup racial bias.

In recent work, we have found that essentialist thinking plays a role in more basic aspects of children's social cognition, such as how children perceive racial group boundaries (Gaither et al., 2014). Replicating the pattern of findings from White adults (Pauker et al., 2009), we found that White children who used essentialist thinking (i.e., the belief that race is immutable) remembered White faces significantly better than they remembered racially ambiguous and Black faces. However, children who did not use essentialist thinking remembered both White and racially ambiguous faces significantly better than they remembered Black faces. Thus, race essentialism appeared to support perceptions of other groups as fundamentally distinct from the in-group.

It is important to note that essentialist thinking about race is distinct from both the psychological salience of race and racial categorization. Two individuals could find race equally psychologically salient but differ in the extent to which they essentialize race. Even though these individuals may categorize others based on race to an equal extent, their cognitive representation of race may differ: one may think about race as fixed, natural, and thus highly predictive, while the other may think about race as malleable, context-dependent, and thus not as predictive. As a result, individuals with these differing representations of race will view racial groups and information associated with those racial groups very differently.

In our own work, we have found that psychological salience of race and essentialist thinking (i.e., the belief that race is immutable) *independently* predict children's out-group stereotyping when controlling for gender, race, age, and classification skills (Pauker et al., 2010). We also have initial evidence that, even in

contexts where race may be highly psychologically salient due to differences in proportional group size and explicit labeling of race, the extent of stereotyping still depends on essentialist beliefs. In research with an ethnically diverse sample in Hawaii, older children in this racially integrated context simultaneously exhibited high psychological race salience but lower race essentialism as compared to children from a less diverse context. Whereas the psychological salience of race is typically linked to increased stereotyping, here we found that essentialism was the key ingredient—older children in Hawaii exhibited less race essentialism, and the less children essentialized race, the less they stereotyped racial out-group members (Pauker, Xu, Williams, & Biddle, in press). This research provides further evidence that children's immediate context may direct the extent to which race is essentialized, and that conditions shown to decrease intergroup bias (e.g., racially diverse and integrated environments) may potentially operate through the reduction of race essentialism (in addition to other more commonly explored mechanisms, such as reductions in anxiety). This work also highlights the importance of distinguishing psychological salience from essentializing race. Even if race is psychologically salient, in environments that foster racial integration and intergroup contact, race may be essentialized less and thus subsequent negative intergroup outcomes may be reduced (see Deeb, Segall, Birnbaum, Ben-Eliyahu, & Diesendruck, 2011).

Social norms

Another factor that can affect racial stereotyping and prejudice in childhood is social norms. Social norms are sets of expectations or rules about beliefs, attitudes, and behavior that a group views as acceptable. Social norms may affect both the acquisition and expression of racial stereotyping and prejudice. For example, in an environment where prejudice toward a certain social out-group is acceptable (e.g., in situations with high intergroup conflict), a number of factors outlined by DIT will likely be met (e.g., psychological salience and an environment filled with explicit attributions, such as "group X is bad") and children are likely to acquire and express prejudice toward that group (see also Nesdale, 2004). However, in many situations, social norms actively denounce the expression of stereotypes or prejudice. Children may still hold biases due to a confluence of factors that support bias acquisition (e.g., psychological salience, essentialism, in-group bias, implicit group/attribute covariation), despite the lack of explicit attributions available in the environment, but they may be unwilling to express these biases. In these cases, children's expression of stereotypes or prejudice may depend on (1) their awareness of the social norm, (2) their acquisition of cognitive skills that allow them to control their behavior (Fitzroy & Rutland, 2010), and (3) their

external (self-presentational) and/or internal (genuine acceptance of norms, moral development) motivations (Rutland, Cameron, Milne & McGeorge, 2005; Rutland, Killen, & Abrams, 2010).

At the level of societal norms, many countries, including the United States, Canada, and the United Kingdom, espouse strong anti-prejudice, egalitarian norms and older children seem to pick up on these norms and regulate their intergroup attitudes and behavior accordingly. For example, research has shown that White children regulate their expressed attitudes in line with social norms discouraging prejudice (Rutland, Cameron, Milne et al., 2005), typically by 10 years of age (see also Raabe & Beelmann, 2011). While this research has provided striking consistency in findings regarding intergroup evaluations, we wondered whether societal social norms would also direct *behavior* in a race-relevant situation. Although there are many different social norms that potentially lead children to regulate their race-related behavior, such as egalitarianism, moral norms proscribing exclusion, or norms that support group functioning, in this chapter we focus on the literature examining how colorblind social norms influence children's intergroup behavior and judgments.

Prevailing societal norms of colorblindness discourage using race as a factor in decision making or even acknowledging it is perceived at all (Apfelbaum, Pauker, Sommers, & Ambady, 2010). Thus, my colleagues and I (Pauker) examined when White children begin to respond to pervasive social norms to avoid talk of race and autonomously self-regulate their behavior (Apfelbaum, Pauker, Ambady, Sommers, & Norton, 2008). We investigated how primarily White children performed on a photo-identification task (similar to the game Guess Who) where optimal performance did or did not require acknowledgment of racial difference. Eighty-six percent of the sample was White and the main goal was to ask yes/no questions to figure out which photo the experimenter had selected from a set of 40 photos. Although older children (10- and 11-year-olds) outperformed younger children (8- and 9-year-olds) on a race-neutral version of the task, older children's tendency to avoid acknowledging race led them to compromise their performance when race was a relevant consideration. In fact, in race-dependent trials the younger children actually outperformed their older counterparts, who seemingly got snagged in trying to avoid mentioning race at the expense of objective task success. Although children's awareness of colorblind norms was not measured, older children's behavior was clearly consistent with such norms.

While the evidence points to children controlling their behavior in line with perceived social norms by late childhood, the majority of work on social norms (both colorblind and other social norms) has focused on White, majority-group children. Thus it is unclear whether the influence of social norms operates similarly for minority children. In contrast to our results with White majority-group children, Deeb et al. (2011) found that older minority (i.e., Arab) children in Israel mentioned

ethnicity *more* often in a similar photo-identification task. The authors offered two possible explanations: differences between minority and majority children or differences in American and Israeli cultural norms, which may also be tied to differences in the categories studied (i.e., race vs. ethnicity). Corroborating the cultural norm explanation, we have recently found that, consistent with White American children, minority children aged 10 to 12 years in the United States also avoid mentioning race on a photo-identification task. This avoidance was related to less positive nonverbal behavior and was predicted by their perceptions of colorblind social norms set by their parents and teachers and their concerns about appearing prejudiced (Pauker, Apfelbaum, & Spitzer, 2015). Thus broad societal-level social norms appear surprisingly influential in propagating race-related behavior in line with these norms (i.e., trying to appear egalitarian).

This raises the question of whether following such social norms in the name of egalitarianism actually helps to support the goal of racial equality. In other words, could the effect of certain social norms perhaps be counterproductive to achieving racial equality and decreasing prejudice? Even though racial categorization serves as a precondition to the development of stereotypes and prejudice, as outlined in the DIT, the act of minimizing explicit use of race when it is readily used in implicit ways in the environment could perhaps contribute to increased subtle biases or a lack of recognition of bias where it does exist. Intuitively, colorblindness should reduce stereotyping and prejudice; reducing the explicit use of racial categories should mitigate the psychological salience of race. The problem is that race can still become psychologically salient to children because other key factors that lead to psychological salience, including perceptual salience, implicit use (e.g., segregation), and differences in proportional group sizes, are still present. Further, eliminating racial categorization may not be beneficial for racial minority group members if it strips acknowledgement of a valuable and positive social identity (Park & Judd, 2005). Building on this notion, we examined whether explicitly adopting a colorblind strategy, whereby intergroup differentiation and explicit labeling of race is *purposely* minimized, helped or hindered progress towards more positive intergroup relations. We found that children exposed to a colorblind mindset, as opposed to a valuing-of-diversity mindset, were actually less likely to detect and report instances of obvious discrimination and were similarly less likely to describe such events in a manner that would prompt intervention by teachers (Apfelbaum et al., 2010). Thus, at least some of the strategies that we adopt in the name of egalitarianism may be counterproductive.

In sum, while examining social norms helps to explain heterogeneity in prejudice expression in middle and late childhood, more research should aim to understand the types of strategies that children adopt to comply with such social norms and whether these strategies actually promote positive intergroup relations or

merely create an atmosphere that obscures prejudice and fosters counterproductive behavior. Moreover, research examining social norms within the context of the development of stereotyping and prejudice has primarily focused on White children. It will be important for future research to examine these processes in a broader sample of children.

Conclusions and Future Directions

We would like to conclude by describing some of the limitations to our current understanding of the implications that racial categorization has for stereotyping and prejudice in childhood, and by suggesting important new avenues for future research. First, we believe that it will be important in future research to give full consideration not only to how the psychological salience of categories, such as race, impact the formation of prejudice (Bigler & Liben, 2007), but also how race salience can affect the *expression* of prejudice. In many studies designed to assess racial biases, researchers rely heavily on measures that are likely to make race psychologically salient (see Cameron et al., 2001, for a review). As one example, in the study of implicit racial attitudes the primary measure that has been used to assess bias, the ch-IAT, *requires* that children categorize targets by race. As a point of caution, even measures of explicit or implicit racial attitudes that do not require racial categorization might draw children's attention to race if the representation of members of specific racial groups within the task is not comparable to what is found in children's typical social environment. Such measures might therefore allow us to gain a solid understanding of children's racial biases under conditions where race has been made psychologically salient, but might fail to capture the extent to which children spontaneously categorize by race in their everyday interactions. We are not suggesting that such measures should not be used, but rather want to highlight that researchers should be conscious of how their method could artificially heighten the psychological salience of race. Overreliance on such measures might lead to an overestimation of children's racial prejudice, particularly given the tendency for findings of racial bias (as opposed to a lack of bias) to be more readily published. Therefore, we encourage the use of multiple measurement methods that can ideally provide convergent evidence for the acquisition and/or expression of racial stereotypes and prejudice.

For this, and other theoretical and practical reasons, we believe that it will be important for future research to go beyond the study of racial attitudes and focus to a much greater extent on behavior. Across the research that we have reviewed, findings based on attitudes often indicated bias, whereas findings based on behavior showed greater contextual variability and sometimes directly conflicted

with the attitude findings. Thus, understanding the factors that influence children's intergroup behavior, including the increasing tendency to self-segregate by race from late childhood into adolescence, will be critical for improving intergroup relations. Ideally, these research endeavors would strive to measure *actual* behavior rather than relying on hypothetical scenarios asking children to predict what they would do. Prejudiced behavior can emerge in subtle forms; for example, we have found that adults' beliefs about whether prejudice can change predict subtle prejudiced behavior (e.g., anxious nonverbal behavior in or avoidance of interracial interactions), above and beyond racial attitudes (Carr, Dweck, & Pauker, 2012). Examining children's intergroup behavior and how we may unintentionally create contexts that perpetuate biased behavior is ripe for future research. In recent work, for example, we have found initial evidence that just the way a teacher frames a lesson about the civil rights movement—simple changes in the way that she talks—can affect children's beliefs about prejudice and how children approach future interracial interactions (Pauker, Apfelbaum, Dweck, & Eberhardt, 2015). We feel that it is important to build on research with adults and examine the subtle routes through which bias may spread. In line with Bigler and Liben's (2006, 2007) DIT model, research suggests that adults (Weisbuch, Pauker, & Ambady, 2009) and preschoolers (Castelli, De Dea, & Nesdale, 2008) pick up on and are influenced by implicit group-attribute variations in their environment, specifically patterns of nonverbal bias displayed by others. These patterns of nonverbal bias, which are also prevalent in children's environments, are one avenue through which bias can be spread in ways that fly under the radar if not studied systematically.

In conclusion, we continue to make great progress toward better understanding racial categorization in childhood and the consequences of this categorization for children's racial attitudes and intergroup behavior. In this chapter we have highlighted some of the main findings from this literature, including recent research examining (1) essentialism, and (2) the impact that social norms can have on children's explicit use of race. Through continued research, we will develop a richer and more nuanced understanding of social categorization that we believe can ultimately be used to reduce the pernicious consequences of childhood stereotyping and prejudice.

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