

ABSTRACT

Title of Dissertation: UNDERSTANDING RACIAL AND GENDER BIASES IN
CHILDREN'S INTERGROUP INTERACTIONS

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Children actively construct knowledge about their social world starting early in development. This knowledge includes an understanding about group norms, group dynamics, and group identity. Group identity includes an awareness of gender, race, and ethnicity. While group identity serves an important affiliative function, there are contexts in which biases emerge about other groups, often contributing to social exclusion and peer rejection. The present dissertation includes three papers which explore the impact of social intimacy, bias, and group norms on children's attitudes and behaviors in intergroup interactions. Empirical Paper 1 explores whether social intimacy impacts children's predictions and evaluations around interracial interactions. Children thought that high intimacy social contexts were more racially segregated than low intimacy contexts and more strongly rejected interracial exclusion in high intimacy social contexts, possibly due to high intimacy social contexts providing opportunities for quality contact and friendship formation. Empirical Paper 2 documents the role of inclusion direct bias and indirect bias justifications in children's same-race inclusion evaluations and their

moral reasoning. Children rejected forms of direct bias, but had more nuanced evaluations of indirect bias, and children's moral reasoning was associated with rejecting complex forms of intergroup exclusion. Lastly, Empirical Paper 3 highlights the role of inclusive outgroup norms in children's attitudes and behaviors towards gender outgroup members. Higher inclusive norm beliefs were associated with more intergender contact, more positive attitudes towards gender outgroup members, and inclusive norm beliefs appeared to be especially helpful for high-status children. Cumulatively, these three empirical paper provide novel evidence that children consider social intimacy, bias, and group norms, when making decisions about social inclusion and exclusion in intergroup interactions. The broader impact of this line of research lies with the potential to develop intervention programs designed to ameliorate early forms of prejudice and bias in childhood, which best prepares children for positive social relationships and healthy social development.

THE ROLE OF SOCIAL INTIMACY, BIAS, AND GROUP NORMS IN
CHILDRE'S INTERGROUP INTERACTION

by

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General Introduction

Much of the research focused on children's prejudice and moral development has argued that prejudice and morality are either largely innate, as the result of neural and cognitive processes (Hamlin, 2013, Hamilton et al., 1986), or largely learned and socialized, a process of compliance with norms from adults as well as the larger community (Grusec et al., 2013). In the present dissertation, a constructivist viewpoint is utilized (Piaget, 1932), one which asserts that children are actively constructing their knowledge about the world and that this process involves weighing and coordinating information to form concepts through abstraction, reflection, interpretation, and evaluation (Turiel, 1983). In the area of moral concepts, children are constructing theories of fairness and equality through interpreting their social interactions with others (Dahl & Killen, 2018; Nucci et al., 2005). Regarding the emergence of prejudice, children are also actively interpreting and evaluating social changes in conjunction with messages from adults and society (Killen & Rutland, 2011).

Children do not passively develop prejudice or morality, rather they are actively weighing varied and completing factors related to prejudice and morality in complex social situations, such as intergroup interactions. In intergroup interactions, children are weighing concerns such as social intimacy, bias, and group norms when deciding whether or not to engage in prejudicial behavior and attitudes. The intimacy level of a context (e.g., sitting on the bus next to someone vs. attending a sleepover with them) often affects children's judgements and reasoning about intergroup interactions (Edmonds & Killen, 2009; Killen et al., 2010). Similarly, whether or not children perceive a behavior in an intergroup interaction to be motivated by direct bias (e.g., outgroup dislike) or indirect bias (e.g., ingroup similarity) impacts whether they accept or reject prejudiced behaviors (Killen et al., 2007; Mulvey, 2016; Stark & Flanche, 2012). Lastly,

group norms (i.e., shared expectations of how group members act) can increase *or* decrease the quality of children's intergroup interactions (McGuire et al., 2017; Nesdale et al., 2005; Tropp et al., 2014). The proposed dissertation works to better understand how children deal with issues related to prejudice and morality through investigating how social intimacy, bias, and group norms contribute to children's behaviors, judgments and reasoning in intergroup interactions.

Dissertation overview. This dissertation is made up of three empiric papers that explore how social intimacy, bias, and group norms impact children's predictions, evaluations, preferences, attitudes and behaviors in intergroup interactions. Empirical Paper 1 investigates how the intimacy level of a social context impacts children's predictions of cross-race inclusion and evaluations of cross-race exclusion (Luken Raz et al., 2024). Empirical Paper 2 examines the role of includer direct bias and indirect bias justifications in children's evaluations of same- race inclusion and moral reasoning (Luken Raz et al., 2025). Lastly, Empirical Paper 3 shows how inclusive outgroup norms can increase children's positive contact with and positive trait attributions towards gender outgroup members (Luken Raz et al., in prep). Cumulatively, these paper highlight how social intimacy, includer bias justifications and group norms influence attitudes and behaviors in intergroup interactions.

Theoretical Framework

The social reasoning developmental model integrates social domain theory (Smetana et al., 2014; Turiel, 2002), and developmental social identity theories (Nesdale, 2008; Tajfel et al., 1979) to explore the knowledge children use in their decisions and judgements in intergroup interactions. The SRD model argues that children utilize multiple forms of knowledge in their decision-making processes in intergroup interactions (Elenbaas et al., 2020). These types of knowledge include moral (e.g., fairness, equality, others' welfare), group identity (e.g., group

functioning concerns, group norms), and psychological knowledge (e.g., attribution of motivation or justification, mental-state knowledge). The SRD model provides a framework for examining when children use these forms of knowledge to reject intergroup exclusion as well as when these forms of reasoning maintain negative attitudes and behaviors towards outgroup members. Furthermore, the SRD model focuses on the importance of contextual factors, such as social intimacy, that influence how children weigh moral concerns with competing group identity concerns (Killen & Rutland, 2011).

The proposed dissertation uses the SRD model to investigate novel research questions about how children's moral knowledge and group identity knowledge as well as contextual factors impacts their predictions, evaluations, preferences, attitudes and behaviors in intergroup interactions. The first paper focuses on how the contextual factor of social intimacy impacts children's moral evaluations and predictions regarding interracial inclusion and exclusion (Luken Raz et al., 2024). The second paper examines how children's moral reasoning and group functioning concerns (in the form of incluser justifications) interact and impact children's evaluations of same-race inclusion (Luken et al., 2025). The third paper considers the role of group identity knowledge, in the form of group norms, in children's contact with and attitudes towards gender outgroup members, such that children with higher outgroup inclusive norm expectations report more positive contact with and attitudes towards gender outgroup members (Luken et al., in-prep). These studies provide novel understanding into the ways social intimacy, incluser bias justifications and group norms together impact intergroup interactions.

Social Intimacy in Intergroup Contexts

Starting early in development, children identify and associate with social groups (Killen & Rutland, 2011). While group memberships enables positive outcomes, such developing a

sense of belonging and connection with others, these group memberships can also allow bias and prejudice to enter children's social contexts and hurt their intergroup interactions and relationships (Cooley et al., 2016). Child-instigated prejudice often occurs in peer contexts, especially in the form of *intergroup peer inclusion and exclusion*, when children selectively decide to include those they perceive to be part of their ingroup identity and exclude those they perceive to be part of their outgroup (Abrams et al., 2009; Møller, & Tenenbaum, 2011). Individuals who experience intergroup social exclusion experience depression and anxiety, reduced academic achievement, and overall reduced well-being (Luken Raz et al., 2024). While cross-race friendships have been shown to help reduce exclusionary attitudes and behaviors (Tropp et al., 2014), these friendships appear to decline across childhood (Aboud et al., 2003).

Social intimacy is a major aspect of childhood friendships (Aboud et al., 2003). Intimate friendships in childhood help individuals transition from childhood to adolescence, especially in relation to socio-emotional adjustment and social competency (Buhrmester, 1990). Regarding intimacy in *cross-race* relationships and interactions, high-intimacy cross-race relationships and interactions may be especially important in regard to quality contact and racial bias reduction. High-intimacy interactions, characterized as taking in place in a private space, physical closeness and a high amount of time spent together (Sternberg et al., 1986), may provide a potential opportunity for *high quality contact*. Repeated high quality contact allows for the creation and continuation of high-quality friendships (Turner et al., 2007; Turner & Cameron, 2016). High-quality friendships that are also cross-race in nature have been found to contribute to reductions in bias and prejudice as well as exclusionary attitudes and behaviors (Pettigrew & Tropp, 2006). Other research has found that high-intimacy interracial contact is especially influential for decreasing racial bias in children who have smaller social networks (Burke et al., 2023).

Despite substantial evidence that intimacy plays a substantial role in children's interracial interactions and relationships (e.g., Aboud et al., 2003, Burke et al., 2023; Edmonds & Killen, 2009; Killen et al., 2010), there is a lack of understanding regarding the role of social intimacy in children's interracial interactions regarding interracial inclusion and exclusion. Thus, the first paper in the proposed dissertation project investigates how social intimacy affects children's predictions and evaluations of an interracial social context (Luken Raz et al., 2024). This paper adds novel findings to understanding the relationship between contextual social intimacy and children's support for interracial inclusion and friendship.

Direct and Indirect Bias Justifications

Same-race inclusion in childhood occurs for a wide variety of reasons. For example, children may engage in same-race inclusion to develop same-race friendships. Same-race friendships are a normal part of development in childhood and aid in positive developmental outcomes, such as strong racial/ethnic identity development, coping with discrimination, and social support (Kogachi & Graham, 2021). However, same-race inclusion can be a form of interracial social exclusion in some contexts, like when children have a same-race or ethnic preference when deciding whom to include in a group. Same-race preference based inclusion can perpetuate status hierarchies and communicate negative attitudes about racial minority group peers, especially when enacted by majority group members (Rivas-Drake et al., 2014; Rutland & Killen, 2015). Furthermore, sometimes these decisions are motivated by *direct biases*, such as disliking someone based on them not being a racial ingroup member (i.e., outgroup dislike). Other times, *indirect bias*, such as the belief that one has more in common with someone who is part of their ingroup than someone who is not part of an ingroup member (i.e., ingroup similarity), motivate these decisions. Indirect bias, such as ingroup similarity preferences, is

more ambiguous because an ingroup similarity preference does not necessarily reflect a dislike for outgroup members, but rather a comfort level reflecting a sense of familiarity. Yet, indirect bias justifications are still used to justify same-race inclusion, which may contribute to ingroup preference. Ingroup preferences can contribute to outgroup bias in environments that promote and uphold social inequalities and social hierarchies (Kaufman & Killen, 2022), thus, indirect bias justifications can still cause harm.

Besides ingroup similarity, indirect bias is also reflected by social pressure, namely, someone engaging in intergroup exclusion due to the preferences of other individuals. Parents and peers play significant and separates roles in influencing children's attitudes about interracial interactions and the emergence of racial prejudice (Hitti et al., 2020; Killen et al., 2007; McGuire et al., 2015; Rivas-Drake et al., 2009), thus, parental and peer preferences likely influence children's evaluations in interracial interactions, including same-race inclusion.

Prior literature motivated by the SRD model has demonstrated that children express numerous justifications for intergroup exclusion. Children view: 1) indirect racial bias in the form of *ingroup similarity* (Hitti & Killen, 2015; Stark & Flanche, 2012), as well as 2) direct racial bias in the form of *outgroup dislike* (Nesdale et al., 2005; Nesdale & Lawson, 2011), as acceptable reasons for intergroup exclusion. Children also often reference indirect racial bias in the form of social influences, specifically 1) *peer preference* and 2) *parental preference*, as justifications for intergroup exclusion (Burkholder et al., 2021; Killen et al., 2007).

Understanding how different justifications influence children's preferences to stay within their racial ingroup versus spending time with racial outgroup members is a necessary step in decreasing biased interracial attitudes and increasing cross-race friendships for children.

In line with this research, Paper 2 examines the role of direct and indirect bias

justifications in children's evaluations of same-race inclusion (Luken Raz et al., 2025). This paper shows that includer justification, includer racial group membership, and moral reasoning serve an important role in children's evaluations of complex forms of intergroup exclusion. This paper highlights the role of direct and indirect bias justifications in children's intergroup social decisions.

Group Norms

By middle childhood, children begin to understand the difference between group norms (e.g., "my group does this") and group membership (e.g., "We are girls") (Sims et al., 2022). With this understanding, children come to understand group norms are an important part of group dynamics (Rutland & Killen, 2017). Peer group norms frequently include criteria for why someone is included in the group, while others are excluded (McGuire et al., 2020). The inclusion criteria may be directly related to group goals, like a swimming team including strong swimmers and excluding those who struggle to swim (Mulvey et al., 2017). Friendship groups, which lack explicit goals, may have exclusionary criteria due to self-protection reasons (e.g., excluding a person who engages in bullying) or for biased reasons (e.g., excluding a person just because of their gender, race, ethnicity) (Rubin et al., 2006; Mulvey et al., 2017). Exclusive peer norms, like excluding peers who are thought to be "different" based on group identity (e.g., gender, race, ethnicity) in contexts where identity is not relevant, contribute to prejudicial reasoning and discriminatory behavior in childhood (Mulvey, 2016).

Alternatively, when a group states "we like to play with kids who are different from us" this communicates that the group is inclusive and asks others to join them, even if they are thought to be an outgroup member. Prior research has found that children prefer outgroup members more when their ingroup has an explicit norm of inclusion than when they have an

explicit norm of exclusion (Nesdale et al., 2005). Furthermore, children's ingroup inclusive norm expectations (i.e., whether or not children thought their ingroup was supportive of cross-ethnic friendships) predicted their desire for forming cross-ethnic friendships (Tropp et al., 2014).

Additionally, children attend to inclusive norms beyond just those of their ingroup. Prior research has found that positive outgroup norms of friendships and fair treatment (e.g., the belief that outgroup members will treat your ingroup well or fairly), significantly reduce intergroup bias amongst children seven and older (Feddes et al., 2009, McGuire et al., 2017; Turner et al., 2008). In one study, when the outgroup had an cooperative group norm and the ingroup had a competitive norm there was a marginal reduction in children's ingroup biased resource allocations, compared to when the outgroup had a competitive norm (McGuire et al., 2017). This demonstrates how positive outgroup norms, such as inclusive outgroup norms, can lead to reductions in children's negative attitudes and biased behavior in intergroup interactions.

Much of the past research on inclusive group norms has focused on racial or ethnic social groups (e.g., Feddes et al., 2009, Tropp et al., 2014; Turner et al., 2008), which has left a gap in understanding the effectiveness of inclusive group norms in reducing childhood *gender* biases. Paper 3 examines the impact of inclusive outgroup norms on children's attitudes and behaviors towards their gender outgroup members (Luken Raz et al., in prep). Specifically, children who believe their gender outgroup has an inclusive norm, engage in and desire more cross-gender contact, and think gender outgroup members are smarter and more hardworking than children who do not. This paper showcases that inclusive outgroup norms can play an a vital role in assisting children in engaging in equitable and inclusive behavior in intergender contexts.

Present Papers

The current dissertation is comprised of three empirical paper which explored the impact of social intimacy, inclusion bias justifications, and group norms on children's intergroup attitudes, judgments and behaviors. The three studies sampled children (ages 6-12 years of age) in the United States from racial and ethnically diverse backgrounds and families from low- to high-middle income backgrounds.

Empirical Paper 1, entitled "Children's Evaluations of Interracial Peer Inclusion and Exclusion: The Role of Intimacy (Luken Raz et al., 2024), examined if children's predictions of cross-race inclusion and evaluations of cross-race inclusion differed between a low-intimacy and a high-intimacy social context. Results showed that children predicted cross-race inclusion to be less likely in high- than low-intimacy contexts. They also evaluated cross-race exclusion more negatively in high- than low-intimacy contexts. This paper extended research on contextual factors, showing that the social intimacy of a social context impacts children's predictions of and evaluations in interracial inclusion contexts.

Empirical Paper 2, entitled "Children's Perspectives About Direct and Indirect Bias Regarding Same-Race Peers" (Luken Raz et al., 2025), explored the impact of justifications that reflect direct and indirect bias as well as significant intergroup socializing agents (e.g., parents and peers) on children's evaluations of same-race inclusion. This paper built on the work of Empirical Paper 1 by examining inclusion motivations, which has been shown to influence children's acceptance or rejection of interracial exclusion. Specifically, we showed that children accept indirect bias as a more legitimate justification for same-race inclusion than direct bias and that children accept parental preference as a more legitimate justification for same-race inclusion than peer preference with a Black peer. Additionally, we showed that moral reasoning can serve a positive role, helping children identify the possible negative effects of same-race inclusion,

which can be a form of intergroup exclusion.

Empirical Paper 3, entitled “Children’s Perceptions About Gender Outgroup Inclusivity, Cross-Gender Contact & Positive Trait Attributions” (Luken Raz et al., in-prep) extended the work of Empirical Papers 1 and 2 by exploring how these factors and related processes, such as group norms, may impact children’s attitudes and behaviors in intergender contexts. Children who believe their gender outgroup had more inclusive group norms (e.g., desire to play with children who are different from them) reported and desired more contact with gender outgroup members and also attributed more positive traits to their gender outgroup members than children who didn’t believe their gender outgroup had inclusive outgroup norms.

The three papers in this dissertation extend empirical knowledge on how social intimacy, bias, and group norms impact children’s predictions, evaluations, preferences and behaviors in intergroup interactions. The findings from this dissertation contribute to a better understanding of how to create positive intergroup relationships among racially diverse and gender diverse peers, reduce intergroup bias, and promote a recognition of fair treatment of others.

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Empirical Paper 1

Children's Evaluations of Interracial Peer Inclusion and Exclusion: The Role of Intimacy

Children's Evaluations of Interracial Peer Inclusion and Exclusion: The Role of Intimacy

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Abstract

The present study investigated how Black and White American children, ages 6 to 9.5 years and 9.5 to 12 years ($N = 219$, $M_{\text{Age}} = 9.18$ years, $SD_{\text{Age}} = 1.90$; 51% female) evaluated vignettes in which peers included a same- or cross-race peer in a high-intimacy or low-intimacy context. These data were collected 2021-2022. Children expected characters to be less likely to include cross-race peers in high- than low-intimacy contexts. They also evaluated cross-race exclusion more negatively in high- than low-intimacy contexts. Black participants evaluated cross-race exclusion more negatively than did White participants. Older participants were more likely to personally include a cross-race peer. This study is a first step towards understanding the role of intimacy in cross-race peer relationships.

Key Words: Intergroup attitudes, social exclusion, peers, social intimacy, prejudice

Children's Evaluations of Interracial Peer Inclusion and Exclusion: The Role of Intimacy

Inclusion and exclusion from peer social groups is a highly salient experience in childhood. Repeated exclusion by peer groups can lead to negative developmental outcomes, such as anxiety, depression, sleep disorders, social withdrawal, and low academic achievement (Marks et al., 2015; Rivas-Drake et al., 2014). Being excluded because of one's social group memberships, such as race/ethnicity, gender, religion, or sexuality, may be especially harmful given that changing one's group identity is often not feasible, nor desirable (Møller & Tenenbaum, 2011). Furthermore, cross-race friendships have been shown to contribute to a reduction in exclusionary attitudes and behavior (Tropp et al., 2014), but such friendships appear to decline with age across childhood and are less common than same-race friendships, which become more desirable with age across childhood (Aboud et al., 2003; Graham et al., 2014; Kogachi & Graham, 2021).

Social intimacy is a key component of childhood friendships (Aboud et al., 2003). Given that high quality intergroup contact has been shown to reduce prejudice and bias (Tropp et al., 2014), one might expect that the more intimate the relationship or social context, the more likely that the contact helps to promote inclusivity. Yet, to date, little is known about children's perceptions of high- and low- intimacy cross-race encounters. Previous developmental psychology research on intimacy in cross-race relationships has been largely limited to adolescent interracial/ethnic dating (e.g., Edmonds & Killen, 2009). The current study was one of the first to explicitly and systematically examine how the context of social intimacy impacts cross-race friendships and inclusion in childhood, prior to adolescence. The design of the present study aimed to assess children's predictions, evaluations, and personal preferences regarding vignettes involving a group of children inviting a peer to join a high-intimacy or low-intimacy

social context. Thus, the goal was to understand the development of conceptions about intergroup relationships along the dimensions of intimacy.

Theoretical Frameworks

Social Reasoning Developmental Model

The aims, designs, and hypotheses of this study were informed by the social reasoning developmental (SRD) model (Elenbaas et al., 2020; Killen & Rutland, 2011). The SRD model has a domain-specific approach to development and draws from social domain theory (Smetana et al., 2014) and developmental social identity theories (Nesdale, 2008) to investigate how children evaluate the role of group identity in intergroup contexts. Measurements include assessing participants' evaluations, predictions, and preferences regarding social group exclusion and inclusion. The theory contends that children bring multiple forms of reasoning, such as fairness, group identity, and autonomy, to bear on decisions about social inclusion in intergroup contexts (Elenbaas et al., 2020). For any complex decision, it is important to determine what types of considerations are most salient for a given individual.

The SRD model posits that moral concerns, group identity, and psychological knowledge are weighed by individuals in intergroup contexts and that a crucial research question is understanding when individuals give priority to one form of knowledge (Mulvey, 2016; Rutland et al., 2010). Giving priority to a group tradition at the expense of fair and equal treatment of others may result in prejudicial or discriminatory decisions, such as when women or racial/ethnic minoritized groups are excluded from organizations because of traditions like, "We haven't included them before; why start now?" (Elenbaas, 2019; Killen & Rutland, 2011). Exclusionary group norms in childhood like, "Girls aren't good at soccer, so we don't let them play on our team" reflect the onset of discriminatory orientations (Nesdale et al., 2005). Whereas

inclusionary group norms, such as valuing diversity and fairness, as in, “If we include everyone on the team then we give each person a fair chance” result in more equitable outcomes (Palmer et al., 2015). With social experience and age, children are increasingly likely to weigh multiple factors like racial-ethnic group membership, the intimacy level of a scenario, and the fair course of action, when making predictions about and evaluating the outcomes of social interactions (Mulvey, 2016).

Sternberg Triangular Theory of Intimacy

Given the lack of previous research on intimacy in interracial and same-race peer contexts, we drew on Sternberg’s model (1986) which provided the basis for identifying the level of intimacy in a social context. Sternberg (1986) defined intimacy as a composite of 1) interacting in public vs private space, 2) physical closeness, and 3) time spent together (Sternberg, 1986). Sternberg’s theory stems from the adult social psychology literature which was applied to our developmental psychology study due to its identification of three aspects of intimate relationships and its generative role in social psychology for research on intimate relationships.

A high-intimacy social context, that is, one that takes place in a private space, has a high degree of physical closeness, and where individuals spend a lot of time together, may provide a potential opportunity for *high quality contact*. Quality contact is social contact that includes meaningful interactions, cooperation, and self-disclosure; repeated quality contact leads to the creation and maintenance of high-quality friendships (Turner et al., 2007, Turner & Cameron, 2016). High-quality cross-race friendships have been found to help reduce prejudice, bias, and exclusionary attitudes and behaviors (Pettigrew & Tropp, 2006). Low-intimacy social contexts, which take place in a public place, have little physical closeness, and where individuals spend

little time together, are unlikely to provide an opportunity for quality contact. Thus, high-intimacy social contexts may provide opportunities for quality contact, high-quality friendships, and prejudice reduction that low-intimacy social contexts do not. In this study, we formulated a high- and low-social context of intimacy based on three criteria: 1) interacting in public versus private space, 2) physical closeness, and 3) time spent together (Sternberg, 1986).

For the first inquiry on this specific topic, we focused on the level of intimate context (high or low) rather than an analysis of children's definitions of intimacy which focuses on relationships rather than contexts (Bukowski et al., 2018). That is, the current study uses a context-based definition of social intimacy, which is distinct from a relationship-based definition of social intimacy (e.g., assessing the intimacy level present within a specific relationship or friendship). Thus, each of the three dimensions of intimacy can range from low to high, such that the social context is identified as high or low for all three dimensions.

Intimacy and Cross-Race Inclusion and Exclusion

Children's Views of High-Intimacy Cross-Race Inclusion

Previous research has found that intimate friendships in childhood help with the transition from childhood to adolescence, specifically with socio-emotional adjustment and social competency (Buhrmester, 1990). However, very little developmental psychology research has specifically focused on intimacy in *cross-race* relationships. When asked about cross-race dating and marriage, U.S. youths ranging from ages 10 through 18 from multiple racial and ethnic backgrounds reported their parents were less supportive of them having high-intimacy cross-race relationships than them having low-intimacy cross-race relationships (Edmonds & Killen, 2009; Killen et al., 2010). Further, youth's perceptions of less supportive parental attitudes are often related to youths' own cross-race inclusion decisions, with youths being less

likely to have cross-race friendships and less likely to bring their cross-race friends to their home. Additionally, intimate and dating relationships are often explained in terms of personal choice, and thus children and adolescents are often more accepting of intergroup peer exclusion within these contexts than in other, less intimate ones (Edmonds & Killen, 2009). Aboud et al. (2003) found that Canadian elementary school-age Black and White children rated their cross-race friendships as being lower in intimacy than their same-race friendships. These studies suggest that children may view high-intimacy cross-group friendships and inclusion as less likely but may still support cross-race friendships and inclusion.

High-Intimacy Contexts as Opportunities for Quality Contact

Previous research, informed by the SRD model, has also found that U.S. children and adolescents evaluate explicit race-based exclusion as wrong and unfair (Killen et al., 2013; Mulvey et al., 2016), but expect cross-race inclusion to be less likely than same-race inclusion (Cooley et al. 2019). Children's expectations about what is likely to occur regarding cross-race friendships and inclusion may differ from their evaluations of the acceptability of cross-race friendships and inclusion. For example, children may evaluate cross-race inclusion positively even when they view it as not likely to occur. Furthermore, friendships are built from shared experiences and quality contact, which includes meaningful interactions, cooperation, and self-disclosure between individuals, and an individual's confidence that they can create and maintain positive cross-race friendships (Turner et al., 2007, Turner & Cameron, 2016). Children may recognize that high-intimacy contexts allow for opportunities providing valuable quality contact. As prior research with a sample of racially diverse American children ages 8-14 found that children negatively evaluate the denial of access to opportunities (Elenbaas, 2019), children may evaluate cross-race exclusion more negatively in high-intimacy contexts than in low-intimacy

contexts.

Marginalized Children's Awareness of the Negative Consequences of Cross-Race Exclusion

It is helpful to differentiate decisions about social exclusion (e.g., “Is it all right to exclude X?”) from decisions about social inclusion (e.g., “Who should the group include, X or Y?”). Research has shown that, whereas children often view social exclusion as wrong due to the unfairness of the action, children as young as 7 years of age will support inclusion decisions that give priority to same-group preferences (Hitti & Killen, 2015; Nesdale & Lawson, 2011). This may be because social exclusion is often viewed in more negative terms than social inclusion. However, social inclusion often also implies exclusion, such as in contexts in which more than one person wants to be included (Burkholder et al., 2021; Mulvey, 2016).

In one study, for example, both U.S. Black and White children ages 9 through 14 evaluated racial exclusion as wrong, while only White children viewed it more likely for White peers to include a same-race peer than a cross-race peer in a friendship context (Cooley et al., 2019). This suggests that, under some conditions, White children expect and accept that others are more willing to include a same-race peer than a cross-race peer when considering a friendship opportunity. It also highlights how it is vital to examine racial majority and racial minority perspectives regarding cross-race social interactions, as they may substantially differ due to variance in lived experiences. White children are not often on the receiving end of racial discrimination, but instead may benefit from it, and thus may have difficulty identifying their own biases and instances of prejudice amongst others (Apfelbaum et al., 2008; Brown, 2017). Further, personal experiences of discrimination and discussions around the wrongfulness of prejudice and interracial exclusion may help children as young as 9 years of age identify instances of interracial exclusion and emphasize the wrongfulness of interracial exclusion when

children witness it occurring (Rivas-Drake et al., 2009; Killen et al., 2007). Ultimately, this suggests that Black children may evaluate cross-race exclusion more negatively than White children, regardless of the intimacy level of the social context.

Children's Developing Awareness of Same-Race Inclusion Preference

In addition to racial differences, age-related changes regarding how children evaluate and reason about intergroup social exclusion have been documented. In early and middle childhood, children mostly focus on the moral concerns of fairness and lack of harm when reasoning about intergroup social exclusion (Kaufman & Killen, 2022). However, during late childhood (i.e., approximately 9 to 12 years of age) into adolescence, group identity knowledge becomes increasingly important, with individuals referencing group dynamics, group identity, and group norms in their evaluations and reasoning, often to justify intergroup social exclusion (McGuire et al., 2019; Rutland et al., 2010). For example, one study found that U.S. White 12- to 14-year-olds, overall, expected cross-race inclusion from a group of same-race peers to be less likely than did White 9- to 11-year-olds, suggesting that, as individuals enter late childhood, they increasingly expected peers to have a same-race preference (Cooley et al., 2019). This indicates that, at this age, children are increasingly aware of societal racial biases and same-race preference group norms, as well as that these biases and norms influence the inclusion behavior of their peers. Therefore, as they enter late childhood, children may become increasingly aware of their peers having same-race preferences when it comes to inclusion behavior.

Children's Personal Inclusion Decisions

Although some children may expect peers to be more likely to include a same-ethnic peer than a cross-ethnic peer (Hitti & Killen, 2015; Møller & Tenenbaum, 2011), in many instances, children substantially differentiate between what they personally would do and what they expect

their peers to do. Children have been shown to prefer an individual who favors equally distributing resources, even when their ingroup supports an unequal resource allocation norm (Mulvey et al., 2014; Rizzo et al., 2016), showing that children's personal preference can favor equality, even when their peer group is supporting an existing inequality.

Between the ages of 8 and 13, individuals increasingly distinguish between their own attitudes and those of their peer group, increasingly reporting personal preferences that differ from their expectations and evaluations of their peer group's attitudes and behaviors (McGuire et al., 2018). This suggests that, as they enter late childhood, children may be more likely to report a personal preference that differs from the preference they expect of their peer group (e.g., if an individual expects their peer group to have a same-race preference, they are less likely to have a *personal* same-race preference). Furthermore, in several contexts, by 9 years old most children view interracial exclusion as wrong and unfair, citing concerns for equal treatment and the well-being of others (Killen et al., 2007; Ruck & Tenenbaum, 2014). Research has also found that as children age, they become more capable of valuing diverse peer groups (Hitti & Killen, 2015). As they enter late childhood, children may be more likely to have a personal cross-race inclusion preference.

While research suggests that with age, children develop the ability to express more inclusive preferences than they expect from their peer groups, little is known about whether this developmental process plays out in the same way in high-intimacy contexts, compared with low-intimacy contexts. Thus, the goal of the current study was to investigate whether children's

support for cross-race inclusion and rejection of cross-race exclusion differ between low- and high-intimacy social contexts.

The Current Study

This study investigated 6- to 12- year olds' predictions, evaluations, and personal preferences in vignettes involving a group of children inviting a peer to join a high-intimacy or low-intimacy social context. The intergroup context allowed us to examine whether children's responses about cross-race inclusion and rejection of cross-race exclusion differ between low-intimacy and high-intimacy social contexts. We chose to investigate 6- to 12-year olds in order to test for age-related patterns in cross-race inclusion due to evidence that children in this developmental period attend to their peers' racial group membership in social contexts (Elenbaas & Killen, 2016). Between the ages of 6 and 12, children also become more skilled at weighing multiple, competing factors, such as race and social context intimacy level, when decision-making and predicting others' actions in social moral scenarios (Killen & Rutland, 2010; Smetana, 2011). We choose 6 years of age as the start of the age range, as it reflects when most American children begin elementary school in much of the United States, thus increasing intergroup social contexts. This age is also when children reliably become aware of groups norms and expectations based on social categories (Abrams et al., 2008; Nesdale & Lawson, 2011).

Participant age was treated as a binary grouping variable, with younger children grouped as 6 – 9.5 years old and older children grouped as 9.5 to 12 years old. Studies in developmental psychology have used different strategies for examining age-related findings including analyzing age as a continuous variable or as a grouping variable. Both strategies are robust approaches to understanding age-related changes, and the choice of which strategy to use depends largely on

the research questions. Research on developmental intergroup dynamics has used both techniques. Here we treated age as a binary grouping variable, not because we endorse a stage-based theory of development, but as a way to explore when changes in knowledge domain (i.e., moral concerns, group identity, and psychological knowledge) content and coordination of these domains occur during development. Furthermore, this allows for comparisons between the findings in the present study and previous literature with similar approaches. As an example, researchers have hypothesized that children under 8 – 9 years of age are less aware of the potential to be excluded from one's group when deviating from the group norms, whereas children older than 8 – 9 years of age, due to increasing self-preservation concerns, recognize that deviating from ingroup norms has possible costs, such as exclusion from the group (McGuire et al., 2015). We investigated whether older children would be more likely than younger children to be aware of the costs of social exclusion as demonstrated by their evaluations and personal judgments regarding intergroup inclusion.

We recruited Black and White American children due to the important cultural and historical context of these two groups and their intergroup relations within the United States, as well as long-standing theory and research in developmental and social psychology conducted within the United States (Roberts & Rizzo, 2020).

Participants were shown two vignettes for analysis. In one vignette, a group of friends had the choice to include a same-race peer or a cross-race peer in a sleepover party. In the other, a different group of friends had the choice to include a same-race peer or a cross-race peer in an outdoor movie night. These two activities were selected and constructed to reflect a high-intimacy and a low-intimacy social context, respectively, based on the Sternberg triangular theory of intimacy's three dimensions (Sternberg, 1986). These vignettes were informed by

previous research that utilized race-based social exclusion vignettes which varied in intimacy level, including contexts such as lunch, school, dance, and a sleepover (Killen et al., 2010), though social intimacy was not an explicit variable of study in this prior literature. (See Table S1 in supplementary materials for full description of the low- and high-intimacy contexts).

For each vignette, children separately completed the following tasks: (1) predicted the likelihood of inclusion of a same-race peer and cross-race peer, (2) evaluated the possible exclusion of a same-race peer and cross-race peer, (3) evaluated the acceptability of the group of friends having a same-race preference (i.e., the group of friends including the same-race peer), and (4) reported their own preferences for inclusion. This allowed us to assess the role of social intimacy in children's expectations and support for cross-race and same-race inclusion and exclusion. These measures were modeled after prior research on inclusion preferences in intergroup contexts (Burkholder et al., 2021).

Hypotheses

Based on a review of the literature and the theoretical model (SRD) guiding the study, we made the following predictions:

Hypothesis 1: Predictions of Cross-Race Preference in Low- and High-Intimacy Contexts

We expected that participants would predict the peer group having a cross-race preference as more likely in the low-intimacy context than in the high-intimacy context (H1), given that prior research suggests that childhood cross-race friendships are lower in intimacy (Aboud, 2003).

Hypotheses 2 and 3: Evaluations of Cross-Race Exclusion in Low- and High-Intimacy Contexts

Research demonstrates that children negatively evaluate the denial of access to

opportunity in the context of an existing inequality (Elenbaas, 2019). As high-intimacy social contexts may provide opportunities for quality contact that low-intimacy contexts do not, we hypothesized that participants would evaluate cross-race exclusion more negatively in the high-intimacy context than in the low-intimacy context (H2). Participants may view cross-race exclusion in the high-intimacy context as a form of denial of access to opportunities, but not view cross-race exclusion in the low-intimacy context in this manner. Additionally, we predicted that Black participants would evaluate cross-race exclusion more negatively than would White participants (H3), as previous research has documented that, in some instances, Black children evaluate cross-race exclusion more negatively than White children (Cooley et al., 2019).

Hypothesis 4: Evaluations of Same-Race Preferences in Low- and High-Intimacy Contexts

Children's development relates to increasing awareness of societal racial biases and same-race preference group norms, and knowledge that these bias and norms influence the behavior of their peers (Cooley et al., 2019). Starting around the ages of 8-9, which corresponds roughly to the older age group in the current study, children can be increasingly concerned about the negative social consequences of deviating from group norms (McGuire et al., 2015). Thus, we predicted that older participants (ages 9.5 – 12) would evaluate same-race preferences more positively than would younger children (ages 6 – 9.5) (H4). This hypothesis was also informed by the SRD model, which predicts that with age, children are increasingly aware of their broader societal contexts, including racial biases that their ingroup may hold, and thus may weigh these concerns more heavily against their own concerns about fairness (Killen et al, 2015).

Hypothesis 5: Personal Preference for a Same-Race or Cross-Race Peer

We expected that older participants (ages 9.5 – 12) would be more likely to personally have a cross-race preference when compared with younger participants (ages 6 – 9.5) (H5), due

to research findings that with age, children value diverse peer groups (Hitti & Killen, 2015), and are better able to separate their own attitudes from those of the group (McGuire et al., 2018).

There were no hypotheses regarding vignette includer group race, as previous research examining Black and White American children's predictions and evaluations of same-race and cross-race inclusion and exclusion using vignettes did not find significant effects of the includers' race in their results (e.g., Cooley et al., 2019). Additionally, the analyses presented in this present paper represent confirmatory testing of the above-stated hypotheses and no exploratory hypothesis testing.

Method

Participants

Participants included 219 U.S. children between 6 and 12 years of age ($N = 219$, $MAge = 9.18$ years, $SDAge = 1.90$; 51% female and 49% male). The participants were split into a younger age group ($n = 121$, $MAge = 7.72$ years, $SDAge = .97$; 48% female and 52% male, 76% White and 24% Black) and an older age group ($n = 98$, $MAge = 11.01$ years, $SDAge = .95$; 56% female and 44% male, 61% White and 39% Black). Families were recruited from a pre-existing online database of interested parents with children in this age range established through the authors' lab, as well as through online methods such as Facebook advertising, Facebook groups and nextdoor.com (see Table S2 and Table S3 in the supplementary materials for the full description of sample demographics and sample zip code information, respectively). Sample size was determined using a priori power analyses, based on a $2 \times 2 \times 2$ ANOVA and testing across 8 different groups, using G*Power (Faul et al., 2009). Based on previous literature investigating children's social and moral reasoning in intergroup contexts and expecting medium effects (e.g., Burkholder et al., 2021; Cooley et al., 2019) with α at .05 and power at .80, a minimum of

approximately 130 participants was necessary to test the hypotheses. This number was subsequently rounded up to include 200 participants in order to account for counterbalancing and potential exclusion from the final analyses due to reasons such as experimental error or attrition. The data were collected in 2021 and 2022.

Because racial group membership was of interest in this study, this sample was composed of two racial groups relevant to the stimuli in the study. As identified by parent report, about one-third of the participants were Black ($n = 67$; $MAge = 9.22$ years, $SDAge = 1.76$) and about two-thirds were White ($n = 152$; $MAge = 9.18$ years, $SDAge = 1.96$). We aimed to have a low-middle to high-middle-income sample to avoid the race by income confound often reported in research studies. Black families reported an income level similar to average income levels for families in the United States based on their parent-reported household annual income. White families reported slightly above average income levels (see Table S4 in supplemental materials for income information). Thus, the current study primarily consisted of low-middle to high-middle income families, with White families, on average, reporting a somewhat higher income than Black families, on average.

Procedure and Assessments

Procedure

This project was approved by the Institutional Review Board at the University of Maryland. All children received written parental consent to participate and gave verbal assent prior to administration of the study. Participants were individually interviewed by a trained research assistant using a laptop or desktop computer in a quiet place at home. All interviews took place on Zoom with the trained member of the research team. Participants listened to the study instructions, had an opportunity to ask any questions, and then began the interview. The

interview was accompanied by a PowerPoint that included brightly colored drawings of children and visual representations of the inclusion contexts (Figure 1). All stimuli and measures were presented on a laptop or desktop computer. The interview lasted approximately 20-30 minutes.

Figure 1

Presentation of the Inclusion Context in the Low-Intimacy Vignette

For the movie night, space is limited so only 5 kids can attend the movie night, meaning there is one extra spot for the **outdoor movie night**.



Note. The figure depicts the within-subjects low-intimacy inclusion context, in the Black Children as Includers Condition. © Pixton with permission.

Between-Subjects Conditions

In the vignettes, participants were first introduced to a group of friends as depicted by animated drawings (Figure 1) of the children who made up the friendship group. The group of friends was visually depicted as 4 members (2 boys and 2 girls) who shared the same racial group membership. Participants were randomly assigned to one of two conditions: one in which the group of friends was depicted as White ($n = 112$; 33 Black participants and 81 White participants), and one in which the group of friends was depicted as Black ($n = 107$; 34 Black

participants and 71 White participants). The children in the drawings all had the same positive facial expression (i.e., a smile) and all wore white t-shirts. The stimuli used skin tone and hair styles to convey racial/ethnic differences in the characters. All inclusion characters were gender-matched to the participant (e.g., participants who were boys saw boy inclusion characters and participants who were girls saw girl inclusion characters).

Measures

All participants evaluated both a high-intimacy scenario and a low-intimacy scenario.

Manipulation Check for the Intimacy Condition. In order to determine if participants were noticing the differences between the high-intimacy context and the low-intimacy context, participants were asked three manipulation check questions for each context, each about one of the aspects of intimacy (Sternberg, 1986). The questions were: 1) “Will the group of kids be close together or far apart?” (physical closeness), 2) “Will the group of kids be outdoors or indoors?” (public versus private space) and 3) “Will the group of kids spend a lot of time together or a little bit of time together?” (time spent together). If the participants were not successful at answering one of the questions (e.g., responding that the group of children would “spend a little bit of time together” in the high-intimacy context), the description of the intimacy scenario would be repeated to the participant, and participant would be asked the question again, up to two additional times. The vast majority of the sample, 89.4% ($n = 186$) passed all six manipulation check questions, and 99.5% of the sample ($n = 218$) passed four or more of the six manipulation check questions. Thus, no participants were removed from the study. (For the manipulation check question rates by age group and further manipulation check protocol information, please see Table S5 in the supplementary materials).

Likelihood of Inclusion. Participant predictions of same-race and cross-race inclusion

likelihood were measured with the following question, “How likely do you think it is that the group of kids will invite [character] to join?” Participants reported their likelihood prediction on a 6-point Likert-type scale from 1 (“*really not likely*”) to 6 (“*really likely*”). Participants were shown the same-race inclusion character and the cross-race inclusion character one at a time and asked to predict the inclusion likelihood for each character separately. The order in which the same-race inclusion character and the cross-race inclusion character was show to participants was systematically varied across conditions.

Evaluation of Inclusion. The evaluations of same-race and cross-race peer preferences were measured with the following prompt, “Let’s say the group of kids choose to include [same-race inclusion character]. How okay or not okay is that?”. Participants reported their evaluations on a 6-point Likert-type scale from 1 (“*really not okay*”) to 6 (“*really okay*”).

Evaluation of Exclusion. Same-race and cross-race peer exclusion evaluations were measured with the following question, “Would it be alright or not alright to not include [same-race inclusion character]?”. Participants reported their evaluations on a 6-point Likert-type scale from 1 (“*really not alright*”) to 6 (“*really alright*”).

Personal Preference. Personal preference for same-race or cross-race inclusion was measured with the following prompt, “Now it’s your turn to choose! Who do you think should be invited to the [activity]? [Same-race inclusion character] or [Cross-race inclusion character]?”. Responses were coded as (0) for personal preference for cross-race inclusion and (1) was coded as personal preference for same-race inclusion.

Data Analytic Plan

We conducted repeated measures Analysis of Variance (ANOVA)s to test our central hypotheses and used Bonferroni adjusted pairwise comparisons to explain significant interactions.

Predictions of Cross-Race Preference in Low- and High-Intimacy Contexts

To test our hypothesis that participants would predict the peer group having a cross-race preference as being more likely in the low-intimacy context than in the high-intimacy context (H1), we conducted a 2 (Participant Race: White, Black) x 2 (Participant Age: Younger, Older) x 2 (Intimacy: Low, High) ANOVA with repeated measures on the last factor for cross-race preference prediction.

Evaluations of Cross-Race Exclusion in Low- and High-Intimacy Contexts

To examine our expectation that participants would evaluate cross-race exclusion more negatively in the high-intimacy context than in the low-intimacy context (H2) and that Black participants would evaluate cross-race exclusion more negatively than White participants (H3), we conducted a 2 (Participant Race: White, Black) x 2 (Participant Age: Younger, Older) x 2 (Intimacy: Low, High) ANOVA with repeated measures on the last factor for cross-race exclusion evaluation.

Evaluations of Same-Race Preferences in Low- and High-Intimacy Contexts

We tested our expectation that older participants would evaluate same-race preference more positively than younger children (H4), by conducting a 2 (Participant Race: White, Black) x 2 (Participant Age: Younger, Older) x 2 (Intimacy: Low, High) ANOVA with repeated measures on the last factor for same-race preference evaluation.

Personal Inclusion Preference

We evaluated our hypothesis that older participants would be more likely to personally have a cross-race preference when compared with younger participants (H5) by conducting a 2 (Participant Race: White, Black) x 2 (Participant Age: Younger, Older) x 2 (Intimacy: Low, High) ANOVA with repeated measures on the last factor for personal preference.

Results

For related analyses with age as a continuous variable as well as race of the includer group *and* age as a continuous variable, and correlations and descriptive statistics for key study variables, please see Tables S6-S14 in the supplementary materials.

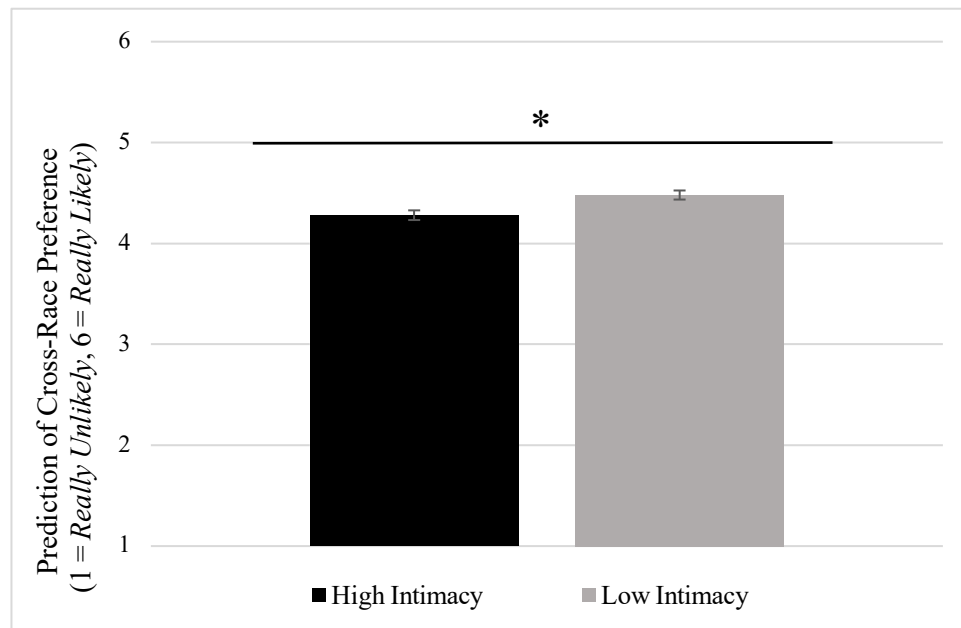
Predictions of Cross-Race Inclusion Preference

To test our hypothesis that participants would predict the peer group as more likely to have a cross-race preference in the low-intimacy context than in the high-intimacy context (H1), we conducted a 2 x 2 x 2 ANOVA with repeated measures on the last factor for cross-race preference prediction. No main effect of intimacy level was found, nor were any other significant main effects or interaction effects.

To further explore our hypothesis, we then ran a 2 (Participant Race: White, Black) x 2 (Intimacy: Low, High) ANOVA with repeated measures on the last factor for cross-race preference prediction. This revealed a main effect of intimacy, $F(1, 217) = 4.39, p = .039, \eta^2 = .019$ (Figure 2). Confirming our hypothesis, participants predicted the peer group would be more likely to have a cross-race inclusion preference in the low-intimacy context ($M = 4.48, SD = 1.34$) than in the high-intimacy context ($M = 4.28, SD = 1.41$). This result indicates that children viewed cross-race preference to be more likely in low-intimacy social contexts than in high-intimacy social contexts, but overall view cross-race inclusion as likely. No other significant main effects or interactions were found.

Figure 2

Mean Predictions of Cross-Race Preference by Intimacy Level



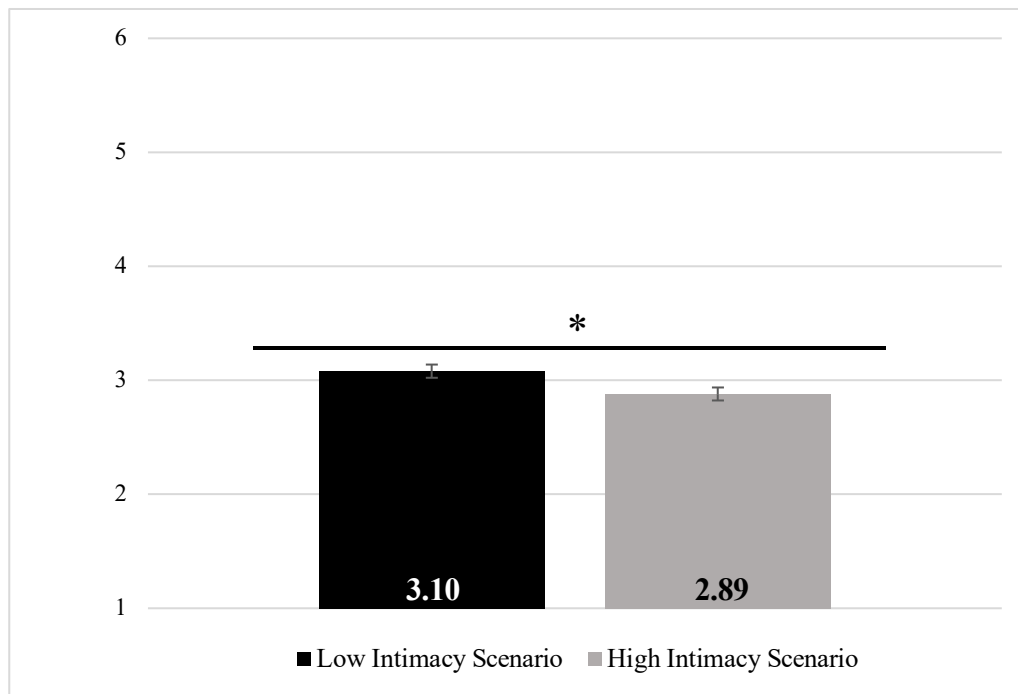
Note. ** $p < .01$. * $p < .05$

Evaluations of Cross-Race Exclusion

To test our hypotheses that participants would evaluate cross-race exclusion more negatively in the high-intimacy context than in the low-intimacy context (H2) and that Black participants would evaluate cross-race exclusion more negatively than White participants (H3), we conducted a 2 x 2 x 2 ANOVA with repeated measures on the last factor for cross-race exclusion evaluation. A main effect was found for intimacy, $F(1, 215) = 4.39, p = .037, \eta^2 = .029$ (Figure 3), indicating that participants evaluated cross-race exclusion as being less okay in a high-intimacy context ($M = 2.89, SD = 1.67$) than in a low-intimacy one ($M = 3.10, SD = 1.70$). This suggests that children thought cross-race exclusion is less acceptable in high-intimacy social contexts than in low-intimacy contexts, though overall they viewed cross-race exclusion as wrong.

Figure 3

Mean Evaluation of Cross-Race Social Exclusion by Intimacy Level



Note. ** $p < .01$. * $p < .05$

A main effect of participant race was also found, $F(1, 215) = 7.34, p = .007, \eta^2 = .033$ (Figure 4); Black participants ($M = 2.72, SD = 2.51$) evaluated cross-race exclusion more negatively than White participants did ($M = 3.28, SD = 1.69$). Black children were more disapproving of cross-race social exclusion in both high- and low-intimacy contexts than the White children were. No significant main effect of participant age nor interactions effects were found.

Evaluation of Same-Race Exclusion

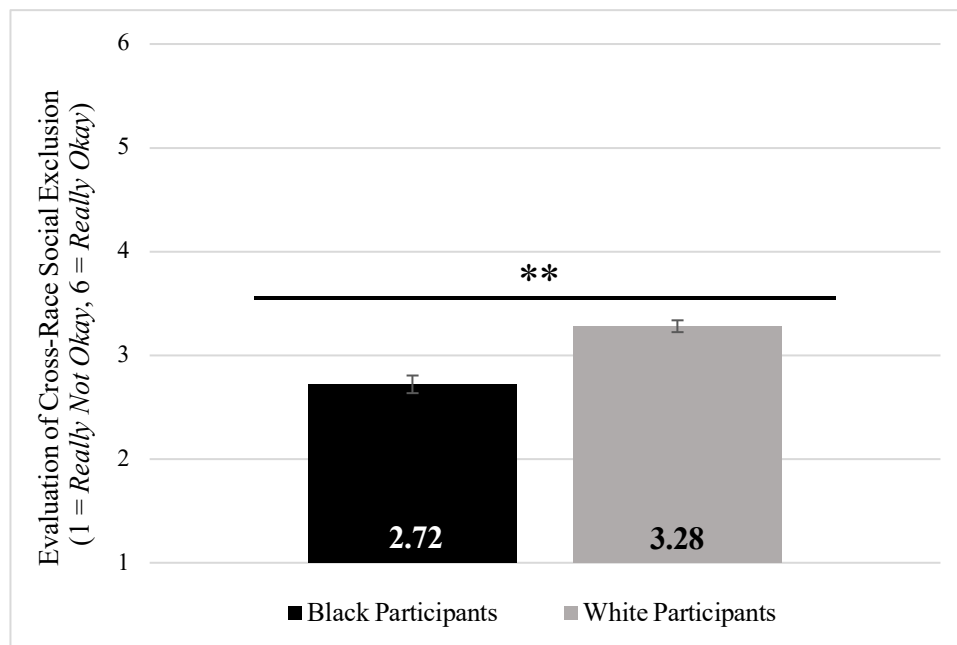
A 2 (Participant Race: White, Black) x 2 (Participant Age: Younger, Older) x 2 (Intimacy: Low, High) ANOVA with repeated measures on the last factor for same-race exclusion evaluation was also conducted. No main effect of participant race was found, nor were

any other significant main effects or interaction effects. Black participants ($M = 2.94$ $SD = 2.61$) did not evaluate same-race exclusion significantly differently than White participants did ($M = 3.31$, $SD = 1.76$).

While we found no significant differences in participants' evaluation of same-race exclusion, we did find significant differences in participants' evaluations of cross-race exclusion, both between the high- and low-intimacy contexts and between Black participants and White participants, which motivated the examination of participants' evaluation of same-race preference in the high- and low-intimacy contexts.

Figure 4

Mean Evaluation of Cross-Race Social Exclusion by Participant Race



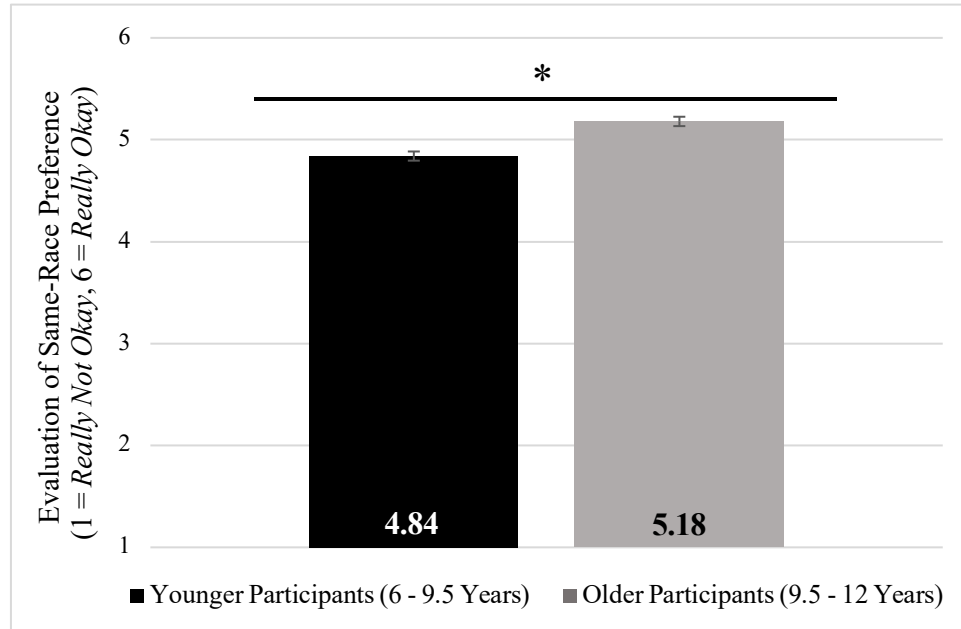
Note. ** $p < .01$. * $p < .05$

Evaluations of Same-Race Preferences

To test our hypothesis that older participants would evaluate same-race preference more positively than younger children would (H4), we conducted a 2 x 2 x 2 ANOVA with repeated measures on the last factor for same-race preference evaluation. This revealed a main effect of participant age, $F(1, 215) = 6.84, p = .010, \eta^2 = .031$ (Figure 5); older participants ($M = 5.18, SD = 1.33$) evaluated same-race preference more positively than did younger participants ($M = 4.84, SD = 1.36$). This finding suggests that, with age, children evaluate peer same-race preference increasingly positively. No significant main effects for participant race or for intimacy were found, nor were any significant interactions. The analysis revealed a significant difference between younger and older participants' evaluations of same-race preference, when participant's evaluations of same-race preference in the high- and low-intimacy contexts are averaged, which drove the investigation of participants' personal inclusion preference for a same-race or cross-race peer.

Figure 5

Mean Evaluation of Same-Race Preference by Participant Age



Note. ** $p < .01$ * $p < .05$

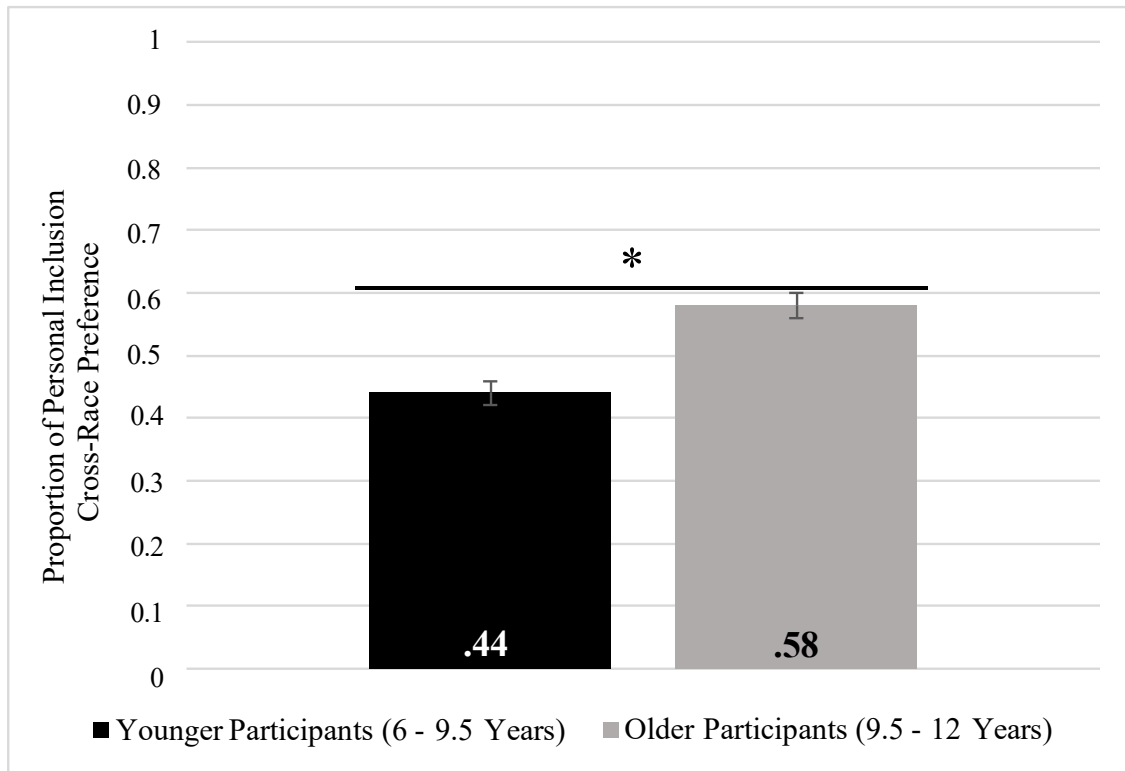
Personal Preference for a Same-Race or Cross-Race Peer

To test our hypothesis that older participants would be more likely to personally have a cross-race preference compared to younger participants (H5), we conducted a 2 x 2 x 2 ANOVA with repeated measures on the last factor for personal preference. This revealed a main effect of participant age, $F(1, 210) = 6.63, p = .011, \eta^2 = .031$ (Figure 6); a significantly larger proportion of older participants ($M = .58, SD = .58$) chose to personally include a cross-race peer more than younger participants ($M = .44, SD = .58$). This result suggests that with age, children are increasingly likely to have a personal cross-race inclusion preference. No significant main effects for participant race or for intimacy were found, nor were there any significant interactions. Running age as a continuous variable revealed that age is not significant, $p = .06$, please see

Table S13 in the supplementary materials for further details.

Figure 6

Proportion of Personal Inclusion Cross-Race Preference by Participant Age



Note. ** $p < .01$ * $p \leq .05$

Discussion

The current study is one of the first to systematically examine how contexts of intimacy are related to children's evaluations of same-race and cross-race exclusion, inclusion, and personal preferences for friendship. This study revealed five novel findings. First, children predicted that their peers were more likely to include a cross-race peer in a low-intimacy social context than in a high-intimacy social context. We also found that children considered cross-race exclusion less acceptable in high-intimacy social contexts than in low-intimacy social contexts

and that Black participants considered cross-race exclusion less acceptable than did White participants, regardless of the intimacy level. Next, this study also found novel age-related findings. Older children viewed their peers' choice to include a same-race peer more positively than did younger children, regardless of the intimacy level of the social context. With age, children were also more likely to personally choose to include a cross-race peer than a same-race peer across the intergroup inclusion contexts. We next discuss the implications of these findings for the literature.

Social Intimacy Influences Children's Cross-Race Inclusion Predictions

Confirming our hypothesis, children predicted that their peers were more likely to include a cross-race peer in a low-intimacy social context than in a high-intimacy social context, although they thought that cross-race inclusion was likely in both contexts. This finding may reflect children's everyday experiences, namely that American parents are most comfortable with their children spending time with their racial ingroup (Elenbaas et al., 2024) and American children expect parents to have prejudicial attitudes towards outgroup members (Hitti et al., 2020), suggesting that the intimate context of socializing in one's home may remain race-segregated for many U.S. children. Thus, children may be interacting with peers from different racial and ethnic backgrounds in school and after school activities more so than in their homes. If this is the case, then intergroup contact theory would suggest this is a problem that needs more attention, as positive intergroup interactions may be more impactful in intimate contexts, such as one's home (Pettigrew & Tropp, 2006). Additionally, recent research has found that children's high-intimacy interracial contact (i.e., their social networks) is especially important for reducing racial biases for children with little low-intimacy interracial contact (i.e., less diverse neighborhoods) and who have smaller social networks (Burke et al., 2023), further highlighting

the importance of high-intimacy cross-race inclusion.

This research shows that children take the intimacy level of a social context into consideration when forming their expectations about peer inclusion behavior. This matters as high-intimacy social contexts provide opportunities for quality contact, which is the basis for stable, long-term friendships. Stable, long-term cross-race friendships are one of the most significant factors that contribute to reductions in prejudice, bias and exclusionary attitudes, and behaviors (Pettigrew & Tropp, 2006). If children expect that cross-race inclusion is less likely in high-intimacy contexts, this may reflect that children are aware of and have internalized group norms that discourage intergroup quality contact, reducing future opportunities for intergroup contact, and cross-group friendships, thus maintaining exclusionary group norms.

Additionally, high-intimacy friendships have benefits regarding socio-emotional adjustment and social competency during the transition from childhood to adolescence (Buhrmester, 1990). If children limit their intimate friendships only to their same-race peers, this inherently reduces their opportunities for high-intimacy friendships, as they consider fewer peers as potential candidates for intimate friendships. This particularly disadvantages children who are in the numeric racial-ethnic minority, as they may feel they have few opportunities for high-intimacy friendships and may subsequently become isolated.

Children Negatively Evaluate Cross-Race Exclusion in High-Intimacy Context

We found that children evaluated cross-race exclusion as less acceptable in a high-intimacy context than in a low-intimacy context. However, overall participants viewed cross-race exclusion as wrong across intimacy levels. This finding might be driven by children recognizing that high-intimacy contexts are opportunities for quality contact, which serve as the basis for long-term beneficial friendships, while low-intimacy contexts do not provide these opportunities.

Children might have viewed high-intimacy cross-race exclusion as wrong because when this form of exclusion occurs, it denies opportunities for long-term, developmentally beneficial friendships. Also, children may recognize that their peers may feel worse if rejected from a special event at their house, compared with a more public activity such as a movie night at the park. Thus, children may view cross-race exclusion in high-intimacy contexts as a form of denial of access to opportunities, in addition to intergroup exclusion, while they view cross-race exclusion in low-intimacy contexts as *just* intergroup exclusion. This expands on previous research, which has shown that children negatively evaluate the denial of access to opportunities, especially in the context of an existing inequality in access to resources (Elenbaas, 2019).

Additionally, this builds on prior research which has found that children and adolescents often evaluate explicit race-based exclusion as wrong and unfair (Killen et al., 2013; Mulvey et al., 2016) and is consistent with the SRD perspective that children more often negatively evaluate intergroup exclusion when it is explicitly driven by social group membership than in more complex or ambiguous contexts (Burkholder et al., 2019). Regardless of the intimacy level, children overall evaluated cross-race exclusion as wrong, suggesting that they may have viewed the cross-race exclusion in the vignettes as being explicitly based on race. This shows that children tend to personally think explicit race-based exclusion is wrong, regardless of the social intimacy level of the context. Still, children may consider the social intimacy of the context in relation to concerns about access to opportunities in their more nuanced evaluations of peer exclusion behavior. It would be prudent to further investigate children's judgments about access to opportunities for quality contact, especially in the contexts of intergroup and cross-race friendships and to directly explore children's reasoning to better understand why children think cross-race exclusion is more likely to occur in high-intimacy contexts but evaluate it more

negatively when it does occur.

Alternatively, children could be evaluating cross-race exclusion as worse in a high-intimacy context than in a low-intimacy context because they assume that the character who is being excluded is already a friend to the includer group due to the very fact that the excluded character is being considered for inclusion in the high-intimacy context (i.e., children believe you must have a high-intimacy relationship with someone in order to even consider inviting them to a high-intimacy social context). Future research should examine the relation between the intimacy of a social context as cued by contextual factors and the intimacy level of the relationship(s) between the different actors in the context. Also relevant for future research are children's beliefs about friendship formation in intergroup contexts to better our understanding of the possible relation(s) between social intimacy and intergroup friendships in childhood.

Black Children Evaluate Cross-Race Exclusion More Negatively

In terms of differences by racial identification, this study showed that Black children evaluated cross-race exclusion overall more negatively than White children, regardless of intimacy level. This may indicate that Black children are more aware than White children of the negative effects of cross-race social exclusion across social contexts. Specific experiences contribute to children being able to better recognize instances of race-based exclusion and to better understand that intergroup exclusion is wrong (Apfelbaum et al., 2008; Beaton et al., 2012; Brown, 2017; Rivas-Drake et al., 2009). For example, Black children more frequently have personal experiences of racial discrimination from peers and have explicit conversations about prejudice, intergroup exclusion, and other forms of discrimination (Rivas-Drake et al., 2009), which likely influence their negative evaluations of intergroup exclusion (Beaton et al., 2012; Killen et al., 2017). Conversations around prejudice and the wrongfulness of intergroup

exclusion may help children understand that intergroup exclusion is wrong and help them identify instances of intergroup exclusion, especially more “subtle” forms of intergroup exclusion, such as intergroup exclusion motivated by assumed outgroup member discomfort, or other group functioning concerns. This ability to better identify instances of interracial exclusion and other behaviors driven by prejudice, and to understand the negative effects of interracial exclusion and other prejudice-driven behaviors more consistently, is a form of social competence.

Social competence is defined as the ability to achieve personal goals in social interaction while simultaneously maintaining positive relationships with others over time and across situations (Bukowski et al., 2018). Individuals who are better at identifying as well as rectifying social inequalities and interracial exclusion are better at navigating intergroup contexts, have more positive and productive intergroup relationships, and contribute to the creation of fair, inclusive, and equitable group norms.

Furthermore, this finding aligns with the SRD model, which posits that children’s own group memberships and experiences in intergroup contexts influence their decisions and evaluations regarding intergroup exclusion (Burkholder et al., 2019). In this study, children’s racial group membership and associated experiences influenced their evaluations of cross-race exclusion. The current finding is in line with previous research documenting that, in some instances, Black children evaluate racial exclusion as more wrong than do their White counterparts (Cooley et al., 2019). Future research should further investigate when participant racial group membership is influential for evaluating intergroup exclusion.

Our finding of racial differences in evaluations of cross-race exclusion suggests that for children who are skilled at identifying intergroup exclusion and who understand that intergroup

exclusion is wrong, moral concerns may outweigh concerns related to the social intimacy of the social context in evaluating cross-race exclusion. Future studies should investigate how participating in conversations about prejudice, intergroup exclusion, and other forms of discrimination play a role in children's evaluations of exclusion. Future studies and interventions can also work to help children recognize that group norms about whom to include often result in outgroup intergroup exclusion and reflect prejudicial attitudes.

Alternatively, Black children may have evaluated cross-race exclusion more negatively than White children, as they need to be more concerned than White children about the possible negative repercussions for excluding a dominant outgroup member that wants to be included. Future studies should investigate what motivates Black children to evaluate cross-race exclusion more negatively than White children and what role the status of a child's social group plays in these evaluations and motivations.

Age-Related Findings for the Evaluation of Same-Race Preferences

Our finding that older children evaluated peer same-race preference more positively on average than did younger children suggests that although children ages 6 through 12, overall, think peers having a same-race preference is okay, children evaluate peer same-race preference increasingly positively with age. Children may have evaluated peer same-race preference positively because intergroup inclusion (i.e., choosing to include someone based on shared group membership when deciding between ingroup and outgroup members) is often viewed as more legitimate than intergroup exclusion, although such intergroup inclusion decisions often include *both* inclusion and exclusion (Burkholder et al., 2021; Mulvey et al., 2016). Children cannot always identify the potential prejudice or cross-race exclusion that may result from intergroup inclusion decisions (Burkholder et al. 2019; Mulvey, 2016). Furthermore, as set forth by the SRD

model and found in previous research, with age, children become increasingly aware of societal racial biases and same-race preference group norms (Cooley et al., 2019; Elenbaas et al., 2016; Killen et al., 2015).

Additionally, prior studies have found that with age, group concerns, such as group norms and functioning, become increasingly important in children's reasoning about social inclusion and are often used to justify intergroup social exclusion (McGuire et al., 2019; Rutland et al., 2010). The complexity of intergroup inclusion, the increasing importance of group concerns in intergroup inclusion reasoning and increasing awareness of societal racial biases and same-race preference group norms all could have contributed to older children's more positive evaluations of peer same-race preference. This finding upholds prior research that has found, with age, children increasingly positively evaluate outgroup exclusion and ingroup inclusion in certain contexts (McGuire et al., 2019; Rutland et al., 2010). With age, children are increasingly aware that societal racial biases and same-race preference norms influence their peers' behavior in intergroup contexts, regardless of the social intimacy level of the context. Future research can investigate what factors contribute to children being able to successfully identify instances where intergroup inclusion leads to intergroup exclusion.

Children's Personal Inclusion Preferences and Peer Inclusion Expectations Differ

We also found that more older children chose to personally include a cross-race peer than did younger children. Children's personal preferences often differ from their evaluations and predictions of others' actions, as their awareness of group norms may lead them to expect exclusivity on the part of groups, even in contexts where their personal orientation would be to act inclusively (Mulvey et al., 2014). Researchers have hypothesized that starting at 8 to 9 years of age, children are increasingly aware of the potential negative outcomes of deviating from the

group norms, such as social exclusion and damaged ingroup relationships (McGuire et al., 2015). Thus, the older children may evaluate peer same-race preference increasingly positively, due to increasing concerns about the costs of outwardly differing from the ingroup, while simultaneously being more likely to have a personal cross-race preference, due to their recognition of the wrongfulness of cross-race exclusion.

In many instances, children reject cross-race exclusion, citing concerns for equal treatment and the well-being of others (Killen et al., 2007; Ruck & Tenenbaum, 2014). By choosing to include a cross-race peer into a group of same-race peers, a child implicitly rejects personal cross-race exclusion. Older children may have been more motivated to engage in cross-race inclusion due to concerns about equal treatment and the wellbeing of others. Additionally, with age, children become increasingly capable of valuing diverse peer groups (Hitti & Killen, 2015) and differentiating between their own preferences and those of their peer group (McGuire et al., 2018). Valuing the benefits of diversity and having the cognitive ability to better differentiate their perspective from that of the group's may have contributed to older children being more likely to include a cross-race peer. Future research should investigate children's reasoning for cross- and same-race inclusion preferences in varied intimacy contexts to understand more about the developmental change we saw in this study as well as the relation between children's cross-race inclusion predictions and their own personal inclusion preferences as to gain knowledge about how cross-race inclusion expectations relate to personal cross-race inclusion preference.

The current finding may seem to be in tension with previous research which has found that cross-race friendships appear to decline with age across childhood and are less common than same-race friendships (Aboud et al., 2003, Graham et al., 2014). However, within the United

States, children's opportunities for cross-race friendships are limited by external factors such as parents (Ladd & Parke, 2021). Recent research has shown that Black and White parents in the United States prefer their children to spend time with same-race peers (Elenbaas et al., 2024). Additionally, the American school system, which remains largely racially segregated (Reardon & Owens, 2014), contributes to the lack of opportunities for cross-race friendships. For American children ages 6-12, the present study's sample, schools and parents influence the set of friendship opportunities that are made available to them. This finding indicates that in a hypothetical situation in which children have equal opportunity to see a same-race or cross-race child included, they see the value in cross-race inclusion. This finding is not necessarily incompatible with prior research but provides more nuanced insight into the extent to which children's own bias may or may not contribute to the decreased frequency of cross-race friendships with age.

Also, within the context of the United States, there has been increased explicit discourse about racial bias and discrimination following the formation of the Black Lives Matter movement and the killing of George Floyd in 2020 (Nguyen et al., 2021; Thelwall & Thelwall, 2021). For example, public school teachers requested antiracist classroom resources and books featuring Latinx, Asian, Muslim, and Jewish cultures, at increased rates following the killing of George Floyd (Agarwal & Sen, 2022). It is possible that older children had more exposure to this explicit discourse about racial bias and discrimination within the United States. This exposure may have led older children to better understand the wrongfulness of cross-race exclusion, resulting in older children being more likely to personally reject intergroup exclusion and have a cross-race personal preference. This finding aligns with prior research of children personally rejecting cross-race exclusion (Killen et al., 2007; Thijs, 2017) and valuing the benefits of

diversity (Hitti & Killen, 2015). Additionally, this finding, in conjunction with the finding that children evaluate peer same-race preference increasingly positively, with age, upholds the SRD model, as, with age, children increasingly differentiated their own mental state knowledge and the mental state knowledge of their peer group. Despite growing concerns regarding group functioning, children's personal preferences increasingly rejected personal intergroup exclusion and endorsed intergroup inclusion in some contexts.

This finding must be interpreted within the sobering context of the contemporary United States, where children and adolescents of color, especially Black children, report experiencing racial discrimination, exclusion and harassment (Umaña-Taylor, 2016). Future research must explore the relation between children's self-reported inclusion preferences in hypothetical intergroup inclusion contexts and their actions in the day-to-day intergroup inclusion contexts they encounter, as to understand if hypothetical inclusion preferences can be translated or bolstered into the vital action of intervening when witnessing intergroup exclusion or harassment based on racial group membership.

Limitations and Future Directions

By design, the sample in this study included two demographic groups in the U.S., Black and White Americans, who were low-middle to high-middle-income. An important future direction for research is the investigation of other interracial and interethnic group dynamics and the influence of intersections of other identities to deepen the literature regarding group dynamics. Furthermore, while the participant sample in the present study included a wide range of socioeconomic statuses (SES), the children recruited were from mostly middle-class families. By roughly matching racial groups in the sample by family income, we attempted to account for the potential confound of SES and race that is present in much of the child development research

(Rogers, 2019). Future research could systematically target both low-SES children and high-SES children from both racial/ethnic groups, as this could deepen understanding of how race, socioeconomic status, and social intimacy interact to influence children's social judgments, and as to more fully avoid the confound of race and SES for future child development research conducted within the context of the United States. Future studies should also collect data on children's intergroup contact contexts to better understand the interaction of intergroup contact and social intimacy on children's behavior in intergroup contexts.

In the current paper, we chose a data analytic approach that focused on group-mean results, as group means results often allow for easy interpretation, and treated age as a categorical factor, as to allow for more direct comparison to prior literature that has age as a categorical variable. Future research could utilize other data analytic approaches, such as difference from the midpoint scores and treating age as a continuous variable, in investigating the research questions presented in this study, to gain a deeper understanding of how these variables relate to one another at different points in development.

Furthermore, in the current study the two social activities were constructed so that parents were involved, as is typical in the U.S. regarding these types of activities for children ages 6-12 years old. Future research could systematically investigate how children respond when parental roles vary such as whether they are explicitly present or absent in high- and low-intimacy peer-based social activities. It is possible that whether parents are explicitly engaged in the activity or not communicates information to children about whether parents view the situation as more or less legitimate. In addition, it would be valuable to examine the role of intimacy with older participants, such as in middle school (ages 13-15) to examine contexts in which parents are mostly absent.

Reasoning assessments were beyond the scope of the present manuscript, which limited our understanding of what factors motivated children's predictions, evaluations and preferences regarding social intimacy in intergroup contexts. Moving forward, studies focused on the role of social intimacy on interracial and same-race friendships should include reasoning assessments, such as asking participants to explain the reasoning behind their predictions, evaluations and judgments, and data analytic plans that include reasoning. Reasoning should be included to better understand what factors are salient in children's predictions, evaluations and preferences in intergroup interactions in high and low intimacy social contexts.

An interesting avenue for future studies would be to directly investigate whether there would be differences regarding children's evaluations, predictions, and personal preferences as a function of whether the includer was a member of the participants' racial ingroup or outgroup, and whether these differences occurred for both Black and White participants. Additional analyses were run that included includer race as a variable and found mixed effects for includer race, including a significant interaction between cross-race inclusion predictions and includer race, such that when participants saw a group of Black friends being includers, participants predicted the peer group would be more likely to have a cross-race inclusion preference in the low-intimacy than in the high-intimacy context, indicating one possible relation between includer race and social intimacy (see Tables S6-S14 in the supplementary materials for more information). The nuanced findings from these additional analyses highlight the importance of directly investigating the role of includer race in relation to children's evaluations, predictions, and personal preferences regarding cross-race inclusion and social intimacy. While directly focusing on these questions is beyond the scope of this study, it would be very important to examine the racial dynamics of these peer interactions more directly in future research.

Lastly, in the present study, intimacy was conceptualized in the concrete terms of closeness, space, and time spent together. Further research could explore other conceptualizations of social intimacy, such as children's beliefs about emotional closeness in high-intimacy friendships as well as how the desirability of high-intimacy contexts is related to the level of intimacy present in the specific friendships of the other children attending the high-intimacy context. Overall, the present study is a first step toward understanding the role of intimacy in children's interracial and same-race friendships.

Conclusions

In sum, this study investigated 6- to 12-year-old Black and White U.S. children's predictions, evaluations, and personal preferences across two conditions in which hypothetical peers could choose to include a same-race or cross-race peer in a high-intimacy or low-intimacy social context. The results shed light on how children's support for cross-race inclusion and friendship as well as their rejection of cross-race exclusion differs between low- and high-intimacy social contexts. Children's responses reflected that they are aware of societal race-based exclusion (e.g., the awareness that high-intimacy contexts are often relegated to the ingroup and that cross-race exclusion is often expected and accepted), but personally did not approve of this societal inequity. With age, children increasingly expected their peers to perpetuate this societal inequity, while simultaneously personally seeking to rectify this societal inequity, highlighting the distance between ingroup expectations and moral concerns. These results showcase that children actively consider issues relating to prejudice, cross-race inclusion, and discrimination, which is especially important as efforts to reduce prejudice and create an inclusive environment for children have become politicized in the United States in recent years and have suffered due to the continuing impact of the COVID pandemic on the American

education system, especially in regard to children's social development. In addition, collecting data on the role of intimacy in cross-group friendships in non-U.S. contexts would contribute to our goal of a global science of human development.

These findings are important for creating both school-based and parent-based programs to heighten awareness about the necessity of promoting friendships across boundaries which enable children to acquire new perspectives, develop mutual respect, and recognize the benefits of diversity which will promote a more equitable society.

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Empirical Paper 2

Children's Evaluations of Direct and Indirect Bias Justifications for Same-Race Inclusion

Children's Evaluations of Direct and Indirect Bias Justifications for Same-Race Inclusion

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Abstract

Different forms of prejudice emerge in childhood, often referred to as direct and indirect bias. Little is known about children's evaluations of whether certain forms of bias are more okay than others, particularly in the context of peer and parental messages about interracial social inclusion. To address this gap, the present study investigated how Black and White American children, ages 6 to 12 years ($N = 219$, $M \text{ Age} = 9.18$ years, $SD \text{ Age} = 1.90$; 51% female) evaluate vignettes in which a Black or White peer opted to include a same-race peer due to indirect bias (preferences for in-group similarity) or direct bias (expressions of outgroup dislike). Data were collected in 2021-2022. Children evaluated same-race inclusion due to expressions of outgroup dislike more negatively than same-race inclusion due to in-group similarity preference. They also evaluated same-race inclusion due to a preference for in-group similarity stated by peers more negatively than when stated by parents. Children evaluated same-race inclusion due to parental preference more positively when the child who included a same-race peer was Black than when the child who included a same-race peer was White. Participants who negatively evaluated same-race inclusion due to parental preference were more likely to use moral reasoning to justify their evaluations while participants who positively evaluated this inclusion more likely to use non-moral reasoning. This study revealed novel insights about how Black and White American children evaluate forms of direct and indirect bias as justifications for same-race inclusion and how their reasoning relates to their evaluations.

Children's Evaluations of Direct and Indirect Bias Justifications for Same-Race Inclusion

Children consider a variety of factors when including or excluding friends and peers in social group contexts. One prominent factor children incorporate into their decision-making is information about peers' social group membership (e.g., gender, race, ethnicity) (Killen et al., 2013; Rutland & Killen, 2015). Peer exclusion based solely on one's social group membership is called intergroup exclusion (Burkholder et al., 2019; Cooley et al., 2016). An example of intergroup exclusion based on racial group membership is when children are excluded from an activity because of their race. Being the victim of interracial social exclusion and other forms of unequal treatment based on race in childhood is harmful, and is associated with various negative emotional, health, and academic outcomes (Brown, 2017; Chavous et al., 2008; Neblett et al., 2013; Yip, 2015).

Same-race inclusion includes the decisions an individual makes when deciding whom to include in social contexts and in peer groups (Burkholder et al., 2019). In some contexts, same-race inclusion can be a form of interracial social exclusion, such as when children display a same-race or ethnic preference when deciding whom to include in a group. Inclusion based on same-race preference perpetuates status hierarchies and communicates negative attitudes about racial minority group peers (Rivas-Drake et al., 2014; Rutland & Killen, 2015). Additionally, investigating children's peer inclusion decisions and evaluations is important because inclusion contexts (i.e., social contexts in which an individual is deciding whom to include in a peer group or activity) often reveal subtle, stereotypic expectations that are not as frequently observed when asking children directly about peer exclusion, as these contexts can reflect more complex social scenarios (Hitti & Killen, 2015). Children are frequently exposed to complex intergroup scenarios where they must weigh competing interests, such as moral concerns and group

functioning concerns, in their decision-making process (Elenbaas et al. 2020). Investigating children's same-race inclusion decisions and evaluations in hypothetical scenarios increases understanding of children's attitudes and reasoning in more complex social scenarios. It also increases understanding of the factors that contribute to children challenging instances of intergroup exclusion. This knowledge can inform prejudice reduction interventions which providing scaffolding to children regarding the identification and challenging of instances of racial bias and discrimination.

There are a number of reasons why children might choose to include someone from the same racial background, such as *direct racial bias* or *indirect racial bias*. *Direct racial bias* is “a personal and sometimes unreasoned judgement made solely on an individual's race” (Williams, 2011), such as disliking someone based on them being a racial outgroup member. Children often evaluate forms of intergroup exclusion justified by direct racial bias as illegitimate through negatively evaluating hypothetical intergroup exclusion scenarios where the exclusion is motivated by direct racial bias (Killen et al., 2007; Mulvey, 2016). Other times, these decisions are motivated by *indirect racial bias*, which are beliefs or judgements that contribute to racial segregation or other unequal treatment based on race without *explicitly* being about an individual's race. In-group similarity, the belief that one has more in common with an individual who is part of their in-group than an individual who is not part of their in-group, is a form of indirect racial bias that can be used to justify same-race inclusion. At times children neutrally or positively evaluate forms of intergroup exclusion justified by indirect racial bias, thus evaluating them as legitimate justifications for intergroup exclusion (Hitti & Killen, 2015; Stark & Flanche, 2012). Indirect biases, such as when individuals display preferences for same-race peers, are more ambiguous because preference for same-race peers does not necessarily reflect a dislike for

outgroup members, but rather a comfort level reflecting a sense of familiarity (Burkholder et al., 2019; Stark & Flanche, 2012; Killen et al. 2010).

It is unknown whether children are aware of the distinction between direct and indirect biases, and whether they evaluate these motives differently. This matters as it adds to the understanding of children's cognition about interracial exclusion. Additionally, it provides knowledge about what types of racial bias children are more likely to challenge or confront in peer scenarios, as prior research has found that the more negatively American children evaluate an instance of racial exclusion, the more likely they are to challenge the excluder (Scott et al, 2023). If children differentially evaluate direct racial bias and indirect racial bias, this could provide initial evidence that children are more likely to challenge intergroup exclusion motivated by some forms of racial bias over other forms of racial bias. This knowledge may inform the development of bias reduction programs, suggesting the need for interventions targeted to specific forms of bias. To fill a gap in the literature, then, it is necessary investigate how children evaluate same-race inclusion when it is justified by direct as well as indirect racial bias.

In the social psychological study of intergroup relations and prejudice, there has been debate as to whether in-group preference and outgroup bias are reciprocally related (e.g., Brewer, 1999). That is, if an individual holds positive feelings and preferences towards their in-group, does this mean they *automatically* have negative feelings and bias towards outgroup members? Social identity development theory (SIDT) (Nesdale & Lawson, 2011) argues that in-group preference develops early in childhood as a result of affiliating with groups (Dunham et al., 2011; Kinzler & Spelke, 2011), but outgroup prejudice *only* develops under certain circumstances, such as when there is a group norm of outgroup exclusion or when outgroup threat is present (Nesdale et al., 2005). The current study examined how children evaluate same-

race inclusion decisions when they are framed as being explicitly justified by either outgroup dislike, a form of direct racial bias, or in-group similarity preference, which reflects indirect racial bias.

Beyond in-group similarity, indirect racial bias is also reflected by social pressure, namely an individual engaging in intergroup exclusion due to the preferences of the individuals around them, such as peer or parents (Burkholder et al., 2019; Edmonds et al., 2009). An instance of intergroup exclusion motivated by social pressure represents a form of indirect bias because the excluder's reasoning is *not* "I want to exclude that person because they are Black", but rather "I want to exclude that person because I don't want to face negative consequences from my parents or peers." Social pressure frequently comes from both parents and peers (Edmonds et al., 2009; Hitti et al., 2020; Killen et al., 2007; Rivas-Drake et al., 2009). Parents and peers both play significant, yet distinct, roles in shaping children's attitudes about interracial peer interactions and the possible emergence of racial prejudice (Brown, 2017; Hitti et al., 2020; Killen et al., 2007; McGuire et al., 2015; Rivas-Drake et al., 2009). Thus, it is important to explore how children evaluate parental and peer preferences as justifications for same-race inclusion.

Theoretical Framework

Social Reasoning Developmental Model

The aims, design, and hypotheses of this study were guided by the social reasoning developmental (SRD) model (Elenbaas et al., 2020; Rutland & Killen, 2015). The SRD model draws from social identity theories (Nesdale, 2008; Tajfel & Turner, 1979), as well as social domain theory (Smetana et al., 2014; Turiel, 2015), to examine the reasoning used in individuals' decisions in intergroup contexts. The SRD model asserts that children utilize multiple types of

reasoning in their decision-making about social inclusion and exclusion in intergroup contexts (Elenbaas et al., 2020; Rutland et al., 2010). These types of reasoning include moral (e.g., fairness, others' welfare, "You shouldn't exclude someone just based on their skin color, that is not fair"), group identity (e.g., group dynamics, perceptions of group status, "Girls are different than boys, so those girls shouldn't invite that boy to play"), and psychological knowledge (e.g., attribution of motivation or justification, autonomy, "She shouldn't care what her friends think, she should just do what she wants"). These three different types of reasoning are weighed by children in intergroup contexts, and a vital research question is determining when children prioritize one form of reasoning over another (Mulvey, 2016; Rutland et al., 2010).

Giving priority to moral concerns like fairness and equality has been shown to be associated with individuals rejecting prejudicial or discriminatory decisions, such as through negatively evaluating intergroup exclusion (Mulvey, 2016). When children and adolescents are asked to evaluate a social exclusion or inclusion decision explicitly based on group membership, children often justify their negative evaluations with moral reasoning (Gönül et al., 2023). In contrast, when children are asked to evaluate exclusion and inclusion scenarios that are less explicit and more complex, such as when indirect racial bias justifications are used, their evaluations are more likely to give priority to non-moral reasons, such as group functioning concerns (Cooley et al., 2016). In these instances, children are also more likely to condone the intergroup exclusion (Cooley et al., 2016).

Previous literature motivated by the SRD model has found that children express multiple justifications for intergroup exclusion. Children view: 1) indirect racial bias in the form of *in-group similarity* (Hitti & Killen, 2015; Stark & Flanche, 2012), and 2) direct racial bias in the form of *outgroup dislike* (Griffiths & Nesdale, 2006; Nesdale et al., 2005; Nesdale &

Lawson, 2011), as legitimate reasons for intergroup exclusion. Furthermore, it has been found that children often cite indirect racial bias in the form of social influences, specifically 1) *peer preference* and 2) *parental preference*, as justifications for intergroup exclusion (Burkholder et al., 2021; Killen et al., 2007).

Children Can Display and Accept Indirect and Direct Bias

Previous research has found that children often accept in-group similarity as a valid reason for intergroup exclusion. For example, White European American children ages 6 and 9 years have been shown to assume that other children are more similar when they were members of the same racial outgroup (McGlothlin et al., 2005). Furthermore, Dutch children ages 12-13 years who attend ethnically diverse schools often justify the absence of intergroup friendships due to a lack of shared interests with ethnic outgroup members (Stark & Flanche, 2012). In one study, non-Arab American 12- and 16-year olds expected ethnic in-group members to include Arab American peers with whom they shared interests, but they expected that the Arab American peer group would prioritize in-group similarity, choosing to include an ethnic in-group member over an ethnic outgroup member with shared interests (Hitti & Killen, 2015). Cumulatively, these studies highlight how children often accept in-group similarity as a valid reason for intergroup exclusion.

When it comes to direct racial bias as a justification for intergroup exclusion, specifically outgroup dislike, previous research has found that Anglo-Australian children ages 5 to 12 years rated ethnic outgroup members more negatively on trait attributes than ethnic in-group members (Griffiths & Nesdale, 2006). These children also reported not wanting to play with or live by ethnic outgroup members (Griffiths & Nesdale, 2006). Other studies have found that having a group norm of exclusion can increase outgroup dislike in Anglo-Australian and

White Scottish children ages 5 through 9 years (Nesdale et al., 2005; Nesdale & Lawson, 2011). Together, this shows that children can display direct racial bias in the form of outgroup dislike in intergroup contexts, and are likely to view it as an acceptable reason for intergroup exclusion, especially if they have been exposed to exclusive group norms.

Children Can Reject Direct Racial Bias Justifications

Though children personally display direct racial bias through outgroup dislike and sometimes accept it as a legitimate reason for intergroup exclusion, they often reject direct racial bias as a justification for intergroup exclusion, especially when compared to justifications that do not reflect direct racial bias. Killen et al. (2007) found that 9-10 year old American children from diverse racial-ethnic backgrounds evaluated social exclusion due to racial group membership more negatively than non-race based reasoning. Furthermore, American children see race-based social exclusion as less legitimate than social exclusion based on other forms of social group membership, with 9-10 year olds from diverse racial-ethnic backgrounds evaluating social exclusion based on racial group membership as being more wrong than exclusion based on gender (Killen et al., 2002). This research, along with prior research documenting that children can accept in-group similarity as a valid reason for intergroup exclusion (Hitti & Killen, 2015, Stark & Flanche, 2012), suggests that children may evaluate same-race peer inclusion due to outgroup dislike more negatively than due to in-group similarities. If this is the case, this also suggests that children may view an indirect racial bias justification as more legitimate than a direct racial bias justification. Additionally, this may provide initial evidence that outgroup dislike and in-group preference are not reciprocally related in American children.

Indirect Racial Bias in the form of Peer and Parental Preference

Both parents and peers influence children's attitudes and behaviors in intergroup

contexts. Peer preference plays a role in children's acceptance of intergroup exclusion in the form of peer group norms. Peer group norms that are biased or negative may contribute to bias-based behaviors and may inhibit children from calling out prejudiced attitudes (McGuire et al., 2015; Mulvey et al., 2016). Previous research has found that when in-group members express exclusive norms, White Anglo-children ages 7 and 9 years express increased prejudice towards ethnic outgroup members (Nesdale et al., 2005). Exclusive peer group norms are so influential that they may even work against inclusive norms from teachers and other authority figures that promote interracial contact (McGuire et al., 2015). Peers also function as agents for racial-ethnic socialization (Wang & Lin, 2023). It has been proposed that the mechanisms for peer racial-ethnic socialization include pressuring and reinforcing individuals to perform behavior that is consistent with the norms of that ethnic or racial group (Hughes et al., 2011). These group norms may include norms related to in-group inclusion and outgroup exclusion. Peer racial-ethnic socialization occurs frequently by early adolescence (Chen et al., 2020; Wang & Brenner, 2016). Therefore, in intergroup contexts, children are highly aware of indirect racial bias as transmitted through peer preference and often believe it is a legitimate reason to engage in intergroup exclusion.

Indirect racial bias in the form of parental preference is also salient to children in intergroup peer exclusion contexts. Previous research has found that Asian American children and adolescents believe that parents are less likely to be inclusive of racial/ethnic outgroup peers than peers are (Hitti et al., 2020). Additionally, perceived parental attitudes were related to cross-race relationship behaviors in a sample of racially and ethnically diverse American adolescents (Edmonds et al., 2009). Messages from parents in intergroup scenarios may influence children's understanding of intergroup peer interactions and evaluations of intergroup exclusion, including

same-race inclusion (Killen et al., 2007). Thus, children are cognizant of parental preference as a form of indirect racial bias in intergroup exclusion contexts, and may accept it as a justification for intergroup exclusion.

Throughout childhood, parents and peers have distinct and separate influences on children's attitudes about intergroup peer exclusion. Parental messaging tends to be explicit and didactic, which is due in part to the nature of the parent-child relationships (Perry et al., 2022; Scott et al., 2020; Umaña-Taylor & Hill, 2020). For elementary school age children in the United States, such as the 6-12 year olds in the sample of present study, parents exert a great amount of authority and control over their social lives (Hunter et al., 2012; Ladd & Parke, 2021). Conversely, messages from peers regarding intergroup exclusion may be more subtle or implicit, and are often communicated in the form of group norms (McGuire et al., 2015; Mulvey et al., 2016). When compared to parent-child relationships, peer relationships are characterized by much greater equal status (Bukowski et al., 2018).

The status differences in children's relationships with their parents compared to their peers likely influences children's tendency to challenge or question expressions of bias around interracial interactions. In one recent study, Black and White American children ages 9 to 14 years predicted that interracial peer inclusion would be less likely to occur when parental sources of influence were present than when peer sources of influence were present (Burkholder et al., 2021). Children may believe that ignoring peers' preferences is more acceptable than ignoring a same-race inclusion preference from a parent (Burkholder et al., 2021; Killen et al., 2007). This suggests that children may evaluate same-race inclusion due to parental preference more positively than same-race inclusion due to peer preference and differentiate between different forms of indirect racial bias.

Target Group Identity

Children may also account for racial group membership when evaluating same-race inclusion justified by parental preference, as there are significant differences in the roles that Black and White parents play in preparing their children for interracial interactions in the U.S. The robust literature on ethnic-racial socialization demonstrates that parents of color, including Black parents, commonly engage in practices to communicate information about race, discrimination, and identity to their children (Simon, 2021; Wang et al., 2019). Different types of messages frequently transmitted to Black youth by their parents include messages that promote racial and cultural pride, as well as messages that prepare youth for bias and discrimination they may face in the future (Huguley et al., 2019; Kurtz-Costes et al., 2019). Research shows that Black American parents prioritize racial-ethnic socialization as means to strengthen their children's racial identity and resilience in a country where they are often face discrimination, disempowerment and mistreatment (Hughes et al., 2006; Perry et al., 2024a).

Unlike Black parents, White parents rarely report engaging in ethnic-racial socialization practices with their children (Perry et al., 2019). Many White parents do not view race as an important topic to discuss with their children (Abaied & Perry, 2021 Perry et al., 2024a), and some even report avoiding such discussions out of fear that they may make their children more prejudiced (Hagan et al., 2024). This lack of ethnic-racial socialization by White parents reflects a form of racial privilege, as White parents can choose not to engage in racial-ethnic socialization given their numeric majority status as well as their higher level of access to resources and opportunities than other racial groups. In contrast, many Black parents are compelled to engage in racial-ethnic socialization for the benefit, protection, and safety of their children (Perry et al., 2024a). Additionally, this lack of racial socialization by White parents

reinforces societal messages regarding “Whiteness” as the unstated norm (Abaied, 2023). The lack of racial socialization by White parents may also indirectly communicate to their children that race is an improper topic to discuss, and that there is something negative about individuals who are a different race, allowing for the development of racial bias (Vittrup, 2018).

When White parents do engage in ethnic-racial socialization, they often employ colorblind messaging, which conveys ideas that race is not important and everyone is the same (Perry et al., 2019). Research suggests that this approach is not necessarily effective in reducing racial bias, and rather color conscious socialization that acknowledges the history and ongoing effects of racism may be a more effective method for reducing bias (Perry et al., 2024b). In summary, racial-ethnic socialization practices between Black families and White families in the United States are qualitatively different, with White families rarely engaging in ethnic-racial socialization, in part due to their racial privilege.

Despite the frequent lack of ethnic-racial socialization in White families, White children still show awareness of racial bias and inequality at an early age, prior to starting elementary school (Elenbaas et al., 2020; Mandalaywala et al., 2020). One study by Elenbaas and Killen (2016) presented 5- to 6 and 10 to 11 year old Black and White American children with an inequality of necessary resources (i.e., medical supplies) between hospitals serving children of different racial groups, and asked them to allocate new supplies to the hospitals. Older, but not younger, children rectified the resource inequality when a hospital serving African American children was disadvantaged, but not when a hospital serving European American children was disadvantaged (Elenbaas & Killen, 2016). There is also evidence that by the fifth grade, both Black and White American children are aware that Black individuals are more likely to have restricted access to necessary resources (e.g., school and medical supplies) than White

individuals, and apply this knowledge when evaluating a hypothetical resource inequality (Elenbaas & Killen, 2017). These findings suggest that, beginning in middle-childhood, children can factor contextual information about racial group membership, past intergroup relations, and societal inequalities into their decision-making in intergroup contexts.

Due to Black children's experiences of ethnic-racial socialization, and past research on both Black American and White American children's recognition of racial bias and discrimination, there is reason to expect that children may evaluate same-race inclusion due to parental preference more positively when the includer is a Black child than when they are White. Black children may draw upon the ethnic-racial socialization messages they have received from their parents, and understand that Black parents may have legitimate reasoning for wanting their children to engage with same-race rather than other-race children (e.g., avoiding potential bias and discrimination). Whereas previous research has shown that by late childhood, White children can become aware of systemic biases and societal policies that are unfair (Gönül et al., 2023; Killen et al., 2024; Elenbaas & Killen, 2016, Elenbaas & Killen, 2017). It is possible that White children may apply their understanding of the history of discrimination and broader societal inequalities that Black individuals in the United States face (e.g., Elenbaas & Killen, 2016, Elenbaas & Killen, 2017).

Lastly, it is important to note that due to racial privilege and differential status, same-race inclusion between White and Black children may be associated with different developmental outcomes. For racially and ethnically minoritized children, such as Black children within the context of the United States, same-race interactions and friendships have the potential to be important for positive development in childhood as in-group friendships are associated with a stronger sense of ethnic identity (Graham et al. 2014). Whereas for White children, preferring

same-race inclusion has the potential to perpetuate existing status hierarchies based on racial group membership, and can communicate negative attitudes about peers from minoritized racial groups (Rivas-Drake et al., 2014; Rutland & Killen, 2015).

Prior research has found that children use all these justifications – in-group similarity, outgroup dislike, parental preference, and peer preference – to justify intergroup exclusion. Besides outgroup dislike, these justifications reflect *indirect bias* rather than *direct bias*, but they are still used to justify same-race inclusion, which may contribute to in-group preference. In-group preferences may contribute to outgroup bias in contexts that promote and uphold social hierarchies and inequalities (Kaufman & Killen, 2022). Little is known about how children evaluate these varied justifications for intergroup exclusion when they are directly compared to one another. Thus, the goal of the current study was to systematically investigate how Black and White American children evaluate forms of direct and indirect bias as justification for same-race inclusion, and how their reasoning relates to their evaluations.

The Present Study

This study investigated 6- to 12-year-old Black and White American children's evaluations of vignettes involving a child including a same-race peer for a variety of different justifications, specifically: 1) racial in-group similarity, 2) racial outgroup dislike, 3) parental preference, and 4) peer preference. The varied justifications for same-race inclusion allowed us to examine whether children's evaluations of same-race inclusion differed between a direct racial bias justification and an indirect racial bias justification. It also allowed us to examine whether children's evaluations of same-race inclusion differed between indirect racial bias justifications that came from two distinct socializing agents, parents and peers.

We chose to investigate 6- to 12-year-olds to test for age-related patterns in evaluations

of same-race inclusion. As there is evidence that children in this developmental period differentially evaluate peer intergroup exclusion based on the excluder's justification (Killen et al., 2007), and attend to their peers' racial group membership in social contexts (Elenbaas & Killen, 2016). Between the ages of 6 and 12 years, children also become more skilled at weighing multiple competing factors, such as racial group membership and mental state knowledge, when decision-making and evaluating others' actions in social moral scenarios (Killen & Rutland, 2011; Smetana, 2011). Participant age was treated as a binary grouping variable, with younger children grouped as 6-9.5 years old and older children grouped as 9.5-12 years old. (For more information regarding sample age selection and treatment of age as a binary grouping variable, see Supplementary Methods 1 in the supplementary materials).

We recruited Black and White children in the United States, as children from majority and minority status groups can differ in inclusion preferences, behaviors, and evaluations due to differences in lived experiences. For example, children from racially minoritized groups, such as Black children in the United States, often have personal experiences with racial discrimination that their peers from majority status groups, such as White children in the United States, do not (Rivas-Drake et al., 2009). Thus, it is important to examine the perspectives of children from both majority status and minoritized groups. We specifically chose to recruit Black and White American children due to the fact that societal systems and structures (e.g., political, legal, economic, health care, school, and criminal justice systems) advantage White Americans and disadvantage Black Americans (Braveman et al., 2022; Robert & Rizzo, 2020). We also specifically chose to recruit Black and White Americans as historically most developmental and social psychological research on racism has been conducted within the United States on Black and White Americans (Roberts & Rizzo, 2020). Selecting these two groups for the study sample

allows for the utilization and comparison of a significant body of prior research and theory in the discussing the results of the current study (Roberts & Rizzo, 2020).

To test our hypotheses, participants were shown two vignettes. In one vignette, a White child chose to include a same-race peer due to four different justifications for intergroup exclusion listed above. In the other, a Black child chose to include a same-race peer due to the same four justifications.

Hypotheses

Based on a review of the literature as well as the SRD model, we made the following predictions:

Evaluations of Same-Race Inclusion due to In-Group Similarity and Outgroup Dislike

We hypothesized that participants would evaluate justifications for same-race inclusion based on outgroup dislike (direct bias) more negatively than justifications based on in-group similarity (indirect bias) (H1).

Evaluations of Same-Race Inclusion due to Parental Preference and Peer Preference

We expected that participants would differentiate between different forms of indirect racial bias. Specifically, we expected that participants would evaluate justifications for same-race inclusion based on peer preference more negatively than justifications for same-race inclusion based on parental preference (H2).

Additionally, we predicted that participants would evaluate justifications for same-race inclusion based on parental preference more positively when the includer was a Black child than when the includer was a White child (H3).

Evaluations of Parental Preference and Participant Reasoning

We hypothesized that participants who negatively evaluate parental preference as a

justification for same-race inclusion would be more likely to use moral reasoning more than non-moral reasoning. Conversely, we expected that participants who positively evaluated justifications for same-race inclusion based on parental preference would be more likely to use non-moral reasoning more than moral reasoning (H4).

Participant Age

We expected that for H1, H2 and H3 that the older participants would evaluate the same-race inclusion more negatively than the younger participants (H5). With age, children become more skilled at weighing multiple factors when evaluating others' actions in social moral scenarios (Killen & Rutland, 2011; Smetana, 2011). Thus, older children may be better able to identify the possible negative impacts of same-race inclusion while still giving weight to the specific justification and other factors.

Methods

Participants

Participants included 219 U.S. children between 6 and 12 years of age ($N = 219$, $M_{\text{Age}} = 9.18$ years, $SD_{\text{Age}} = 1.90$; 51% female and 49% male) who resided in the United States. Families were recruited from a pre-existing online database established through the authors' lab, and through online methods including Facebook advertising, Facebook groups and nextdoor.com (see Tables S1-S2 in supplementary materials for the full description of sample demographics and sample zip code information). Sample size was determined using a priori power analyses using G*Power (Faul et al., 2009). Based on previous literature and expecting medium effects with α at .05 and power at .80, a minimum of approximately 130 participants was necessary to test the hypotheses. This number was rounded up to include 200 participants to account for counterbalancing and potential exclusion from the final analyses due to reasons such as

experimental error or attrition. The data were collected in 2021 and 2022.

Because racial group membership was of interest in this study, this sample was composed of two racial groups relevant to the stimuli in the study. About one-third of the participants were Black ($n = 67$; $M_{\text{Age}} = 9.47$ years, $SD_{\text{Age}} = 1.94$) and about two-thirds were White ($n = 152$; $M_{\text{Age}} = 9.05$ years, $SD_{\text{Age}} = 1.88$), as identified by parental report. We aimed to have a low-middle to high-middle-income sample to avoid the race by income confound often reported in research studies.

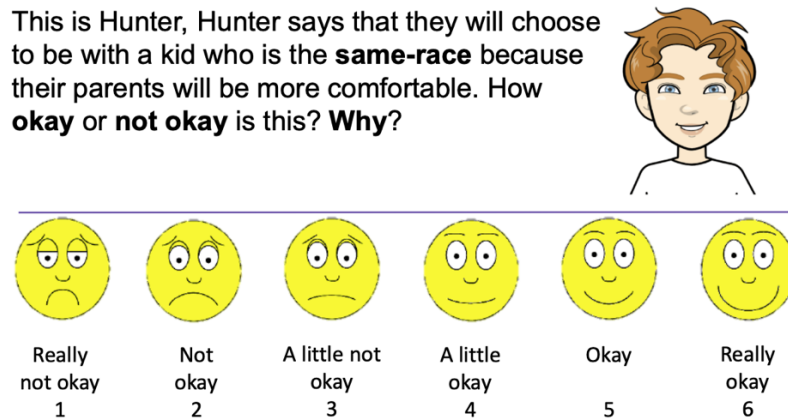
Procedure and Assessments

Procedure

This project was approved by the Institutional Review Board at [BLINDED]. All children received written parental consent to participate and gave verbal assent prior to administration of the study. Participants were individually interviewed over Zoom by a trained researcher using a laptop or desktop computer in a quiet place at home. Participants listened to the study instructions explained by the researcher, had an opportunity to ask any questions, and then began the interview. Children were first trained on how to use the Likert-type scale (for the training script, see Supplementary Methods 2 in supplementary materials). The interview was accompanied by a PowerPoint that included brightly colored drawings of children and visual representations of the inclusion contexts (Figure 1). All stimuli and measures were presented on a laptop or desktop computer. The interview lasted approximately 20-30 minutes.

Figure 1

Presentation of the Same-Race Inclusion Task with a White Target Child



Note. The figure depicts the same-race inclusion due to parental preference justification task with the White Target child. © Pixton with permission.

Measures

Same-Race Inclusion Justification Task. Participants were asked to evaluate how “okay” or “not okay” it was for both a White target child and a Black target child to include a same-race peer for each of following justifications: 1) racial in-group similarity, 2) racial outgroup dislike, 3) parental preference, and 4) peer preference. The White target child and Black target child were depicted by animated drawings with positive facial expressions (i.e., a smile) and the same white t-shirts. The stimuli used skin tone and hair styles to convey racial/ethnic differences in the characters. All participants separately evaluated same-race inclusion perpetrated by both a White target child and Black target child. The target characters were gender matched to the participant, such that girls saw target characters who were girls and boys saw target characters who were boys.

For each of the following four measures, participants reported their evaluations on a 6-

point Likert-type scale from 1 (“really not okay”) to 6 (“really okay”). This measure has previously been used in the intergroup developmental literature to assess children’s evaluations of social inequalities (Elenbaas et al., 2016; Sims et al., 2022) and evaluations of peer intergroup exclusion (Burkholder et al., 2020). Scale responses 1, 2 and 3 were coded as (0) for the negative evaluation of same-race inclusion, and scale responses 4, 5 and 6 were coded as (1) for the positive evaluation of same-race inclusion for analyses that examined participant reasoning.

Same-Race Inclusion due to In-Group Similarity. Evaluations of same-race inclusion due to in-group similarity with a White target child and a Black target child were measured with the following prompt, “[Includer character] says that they will choose to be with a kid who is the same-race because this way they would have more in common with who they pick. How okay or not okay is this?”

Same-Race Inclusion due to Outgroup Dislike. Evaluations of same-race inclusion due to outgroup dislike with a White target child and a Black target child were assessed with the following prompt, “[Includer character] says that they will choose to be with a kid who is the same-race because they don’t like kids who don’t look like them.”

Same-Race Inclusion due to Parental Preference. Evaluations of same-race inclusion due to parental preference with a White target child and a Black target child were measured with the following prompt, “[Includer character] says that they will choose to be with a kid who is the same-race because their parents will be more comfortable.”

Same-Race Inclusion due to Peer Preference. Evaluations of same-race inclusion due to peer preference with a White target child and a Black target child were assessed with the following question, “[Includer character] says that they will choose to be with a kid who is the same-race because it's what their friends would want.”

Reasons for Responses. Following same-race inclusion due to parental preference for both the White target child and the Black target child, justifications for responses were used to examine variance in reasoning by asking participants “*Why?*” The open-ended responses were coded using a validated coding system based on the SRD model (Rutland et al., 2010) and examination of the pilot data. The open-ended responses were coded into two primary reasoning categories established by the SRD model: 1) Moral Reasoning – focus on the moral considerations of equal treatment, fairness and concern for others’ welfare (e.g., “Because with the other person who doesn’t have that color skin, that [social exclusion] would hurt their feelings.”), and 2) Non-Moral Reasoning – focus on non-moral considerations, such as the references to positive traits of individuals, peer and parental norms, and promoting social relationships based on physical similarities (e.g., “Maybe he [inclusion character] was really nice.”). For responses that did not explain “why” participants gave their answer, an “Other” category was created: 3) Other/Uncodable (e.g., “Because I don’t know”). Responses in the Other/Uncodable category were not included in the analyses. Missing reasoning data occurred in less than 2% of the sample and were not included in analyses. See Table 1 for the full descriptions and examples of the two primary coding categories.

Among the 25% of responses ($n = 55$) analyzed for reliability, interrater reliability was achieved (Cohen’s $\kappa = .82$) by two coders. (For more information on the data analytic approach see Supplementary Methods 3 in supplementary materials).

Table 1*Description and Examples of Reasoning Coding Scheme*

Conceptual Category	Definition	Example
Moral Reasoning	References to fairness, equality, and mutual respect	“We should treat everyone equal”
	Wrongfulness of racism, discrimination, and denial of rights	“Because that’s racist”
	Benefits of inclusion and diversity	“Maybe they were interested and thought that it would be cool to get to know someone who might have a different culture from them.”
Non-Moral Reasoning	Friendship potential and positive attributions	“Because she looks nice, she might become their friend.”
	References to autonomy and independent decision-making	“Because it does not matter what your friends think, it’s what you think.”
	Authority expectations and peer norms	“The parents probably have more decision making power over the kids so it would be ok for like the parents...the parents could make decisions better.”
	Preferences for similarity due to physical appearance	“Because they all look closer alike when they choose him.”

Note. All examples listed in Table 1 are verbatim responses from participants in the current study.

Data Analytic Plan

This section outlines the data analytic plan for each analysis. To test all hypotheses, except those hypotheses related to participant reasoning, we conducted repeated measures

Analysis of Variance (ANOVA)s with SPSS version 29. We conducted 2 x 2 x 2 ANOVAs with repeated measures on the last factor to test each of our hypotheses. For all analyses, we included participants' age. Race was coded as Black or White. Follow-up analyses included pairwise comparisons with Bonferroni adjustments to explain significant interactions.

To test our hypotheses related to participant reasoning, we conducted binomial logistic regressions predicting the use of the moral reasoning by evaluation of same-race inclusion due to parental preference (negative and positive), participant age, and participant race. We conducted separate logistic regressions predicting the use of moral reasoning for same-race inclusion due to parental preference with a White target child and with a Black target child. For missing data, listwise deletion was used and missing data did not exceed 5.5% for any of the analyses reported in this paper.

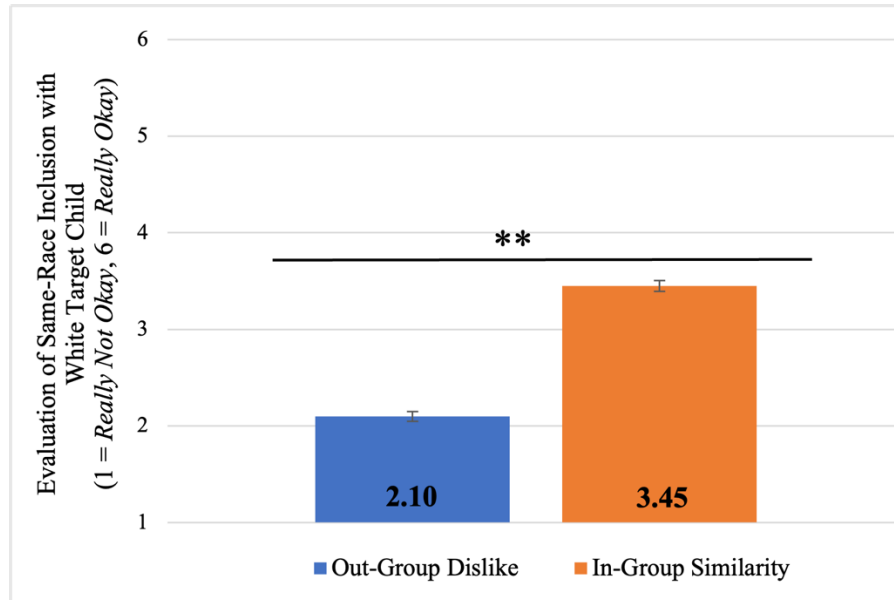
Results

Evaluations of Same-Race Inclusion due to In-Group Similarity and Outgroup Dislike

A main effect of same-race inclusion with a White target child was found, $F(1, 214) = 131.82, p < .001, \eta_p^2 = .38$ (Figure 2), with participants evaluating same-race preference due to outgroup dislike as significantly less okay ($M = 2.10, SD = 1.55$) than same-race preference due to in-group similarities ($M = 3.45, SD = 1.67$), $p < .001$. This confirmed our hypothesis (H1). Children think that outgroup dislike (direct racial bias) is a less acceptable justification for a White child to engage in same-race inclusion than in-group similarity (indirect racial bias).

Figure 2

Mean Evaluation of Same-Race Inclusion due to Outgroup Dislike and In-Group Similarity with a White Target Child



Note. $N = 218$ ** $p < .01$.

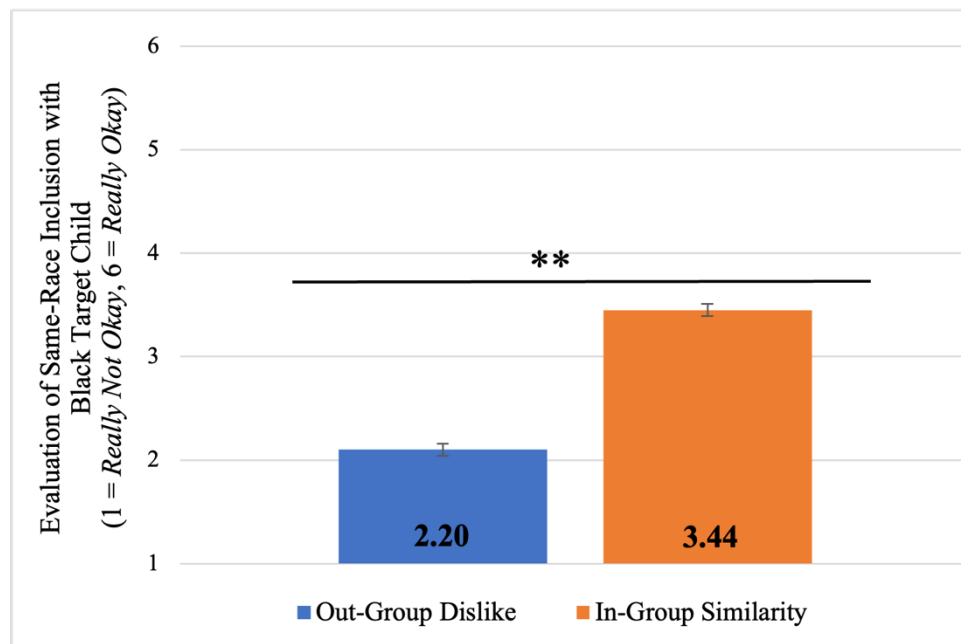
A main effect of participant age was also found, $F(1, 214) = 26.24, p < .001, \eta_p^2 = .11$. Older participants evaluated same-race inclusion preference with a White target child, averaged across outgroup dislike and in-group similarity, more negatively ($M = 2.30, SD = 1.89$) than younger participants ($M = 3.25, SD = 1.95$). With age, children evaluate same-race inclusion due to outgroup dislike and in-group similarity perpetrated by White children increasing negatively.

Additionally, a main effect of same-race inclusion with a *Black* target child was found, $F(1, 213) = 120.99, p < .001, \eta_p^2 = .36$ (Figure 3), with participants evaluating same-race preference due to outgroup dislike with a Black target child as significantly less okay ($M = 2.20, SD = 1.60$) than same-race preference due to in-group similarities ($M = 3.44, SD = 1.61$), $p < .001$. This supported our hypothesis (H1). Children think that outgroup dislike (direct racial bias)

is less acceptable a justification for a Black child to engage in same-race inclusion than in-group similarity (indirect racial bias).

Figure 3

Mean Evaluation of Same-Race Inclusion due to Outgroup Dislike and In-Group Similarity with a Black Target Child



Note. $N = 217$. ** $p < .01$.

A main effect of participant age was also found, $F(1, 213) = 19.39, p < .001, \eta_p^2 = .08$; older participants evaluated same-race inclusion preference with a Black target child, averaged across outgroup dislike and in-group similarity, more negatively ($M = 2.38, SD = 2.04$) than younger participants ($M = 3.27, SD = 2.13$). With age, children evaluate same-race inclusion due to outgroup dislike and in-group similarity perpetrated by Black children increasing negatively.

Evaluations of Same-Race Inclusion due to Peer Preference and Parental Preference

There was no main effect of same-race inclusion with a White target child, $F(1, 213) = 3.48, p = .063, \eta_p^2 = .02$. No significant differences in participants' evaluations of same-race inclusion due to peer preference with a White target child ($M = 2.92, SD = 1.64$) and same-race preference due to parental preference with a White target child ($M = 3.12, SD = 1.65$) were found. This finding was contrary to our hypothesis (H2).

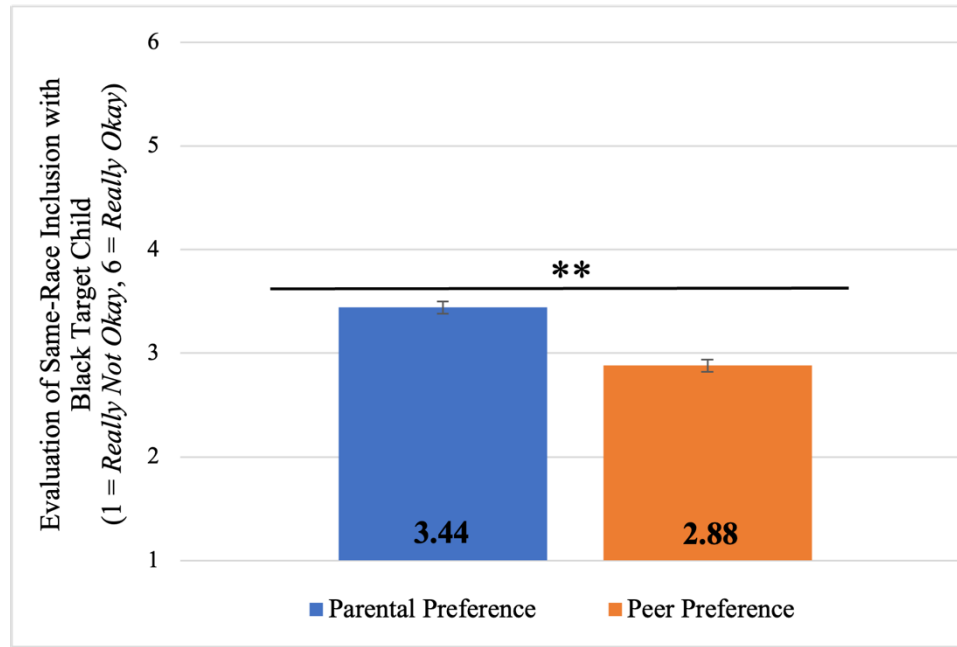
However, a main effect of participant race was found, $F(1, 213) = 4.21, p = .041, \eta_p^2 = .02$. Black participants evaluated same-race inclusion preference with a White target child, averaged across peer preference and parental preference, more positively ($M = 3.23, SD = 2.04$) than did White participants ($M = 2.81, SD = 2.44$), $p = .041$. This finding was unexpected and requires further research as we discuss below.

A main effect of participant age was also found, $F(1, 213) = 22.84, p < .001, \eta_p^2 = .10$; older participants evaluated same-race inclusion preference with a White target child, averaged across peer preference and parental preference, more negatively ($M = 2.54, SD = 2.04$) than did younger participants ($M = 3.50, SD = 2.10$). With age, children evaluate same-race inclusion due to parental and peer preference perpetrated by White children increasing negatively.

Furthermore, a main effect of same-race inclusion with a *Black* target child was found, $F(1, 213) = 24.45, p < .001, \eta_p^2 = .10$ (Figure 4), with participants evaluating same-race preference due to peer preference as significantly less okay ($M = 2.88, SD = 1.65$) than same-race preference due to parental preference ($M = 3.44, SD = 1.63$), $p < .001$. This supported our hypothesis (H2). Children think that peer preference is a less acceptable justification for a Black child to engage in than same-race inclusion due to parental preference and differentiate between different forms of indirect bias racial that come from important socializing agents.

Figure 4

Mean Evaluation of Same-Race Inclusion due to Parental Preference and Peer Preference with a Black Target Child



Note. $N = 217$ ** $p < .01$.

A main effect of participant age was also found, $F(1, 213) = 25.91, p < .001, \eta_p^2 = .11$.

Older participants evaluated same-race inclusion preference with a Black target child, averaged across peer preference and parental preference, more negatively ($M = 2.65, SD = 2.04$) than younger participants ($M = 3.68, SD = 2.13$). With age, children evaluate same-race inclusion due to peer preference and parental preference perpetrated by Black children increasing negatively.

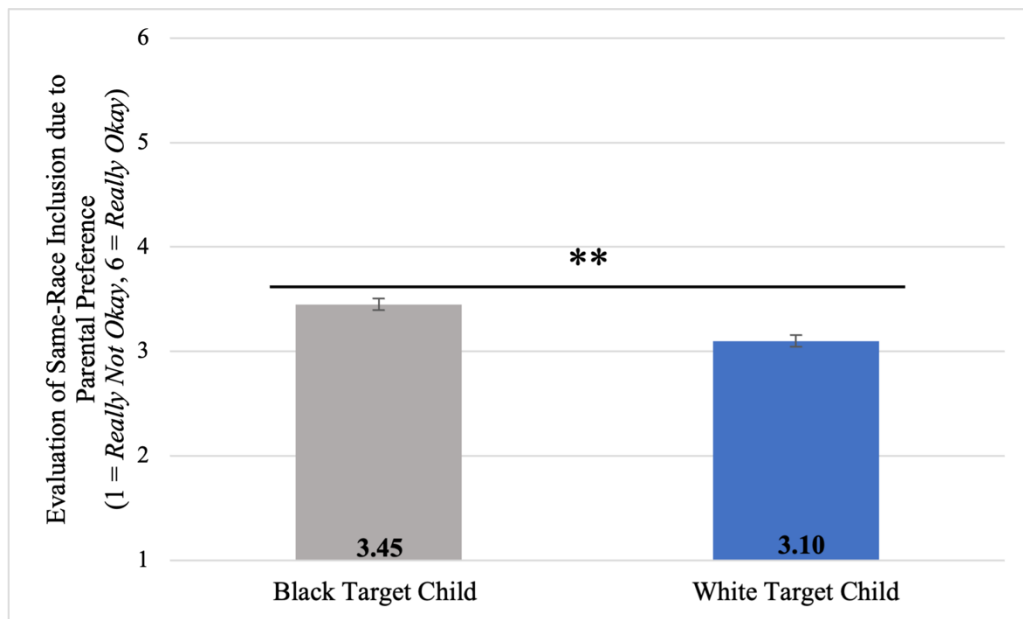
Evaluations of Same-Race Inclusion due to Parental Preference with a Black Target Child and a White Target Child

A main effect was found for target child race, $F(1, 212) = 13.74, p < .001, \eta_p^2 = .06$ (Figure 5), with participants evaluating same-race inclusion due to parental preference more

positively when the target child was Black ($M = 3.45$, $SD = 1.69$) than when the target child was White ($M = 3.10$, $SD = 1.70$). Thus, supporting our hypothesis (H3). Children are more supportive of same-race inclusion due to parental preference when the includer child is Black than when the includer child is White, though they evaluate same-race inclusion due to parental preference as slightly wrong regardless of includer race.

Figure 5

Mean Evaluation of Same-Race Inclusion due to Parental Preference by Target Child Race



Note. $N = 216$. ** $p < .01$.

A main effect of participant age was also found, $F(1, 212) = 13.39$, $p < .001$, $\eta_p^2 = .09$. Older participants evaluated same-race inclusion preference due to parental preference, averaged across the White target child and the Black target child, more negatively ($M = 2.78$, $SD = 2.04$) than did younger participants ($M = 3.77$, $SD = 2.24$). With age, children evaluate same-race

inclusion due to parental preference increasing negatively, regardless of includer child race.

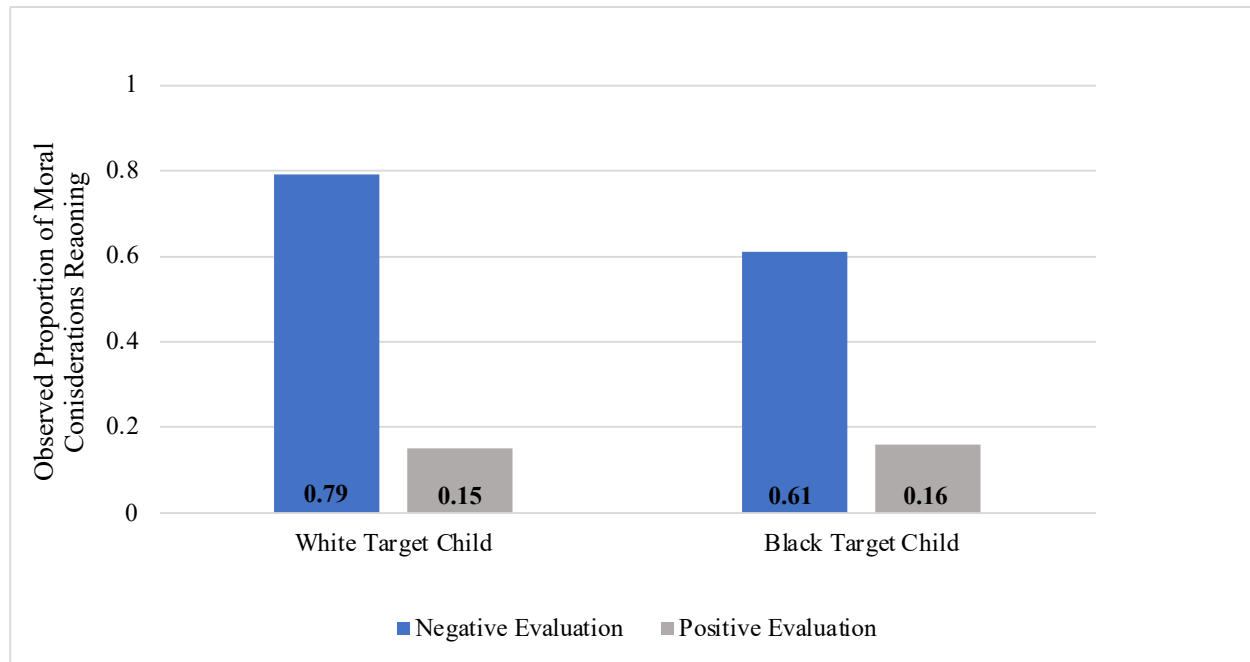
Negative Evaluation of Same-Race Inclusion due to Parental Preference and Moral Reasoning

A main effect of evaluation of same-race inclusion due to parental preference on the use of moral reasoning with a *White* target child was found ($B = 3.28, p < .001, OR = 26.6, 95\% CI [-2.49, 4.17]$). This finding provided support for our hypothesis (H4). Thus, the odds of a child who negatively evaluated same-race inclusion due to parental preference with a White peer using moral reasoning was 26.6 times the odds of a child who positively evaluated same-race inclusion due parental preference with a White peer, all else being equal.

Negative evaluations of same-race inclusion due to parental preference with a *Black* target child were also associated with the use of moral reasoning ($B = 2.04, p < .001, OR = 7.70, 95\% CI [1.37, 2.77]$), supporting our hypothesis (H4). This indicates that the odds of a child who negatively evaluated same-race inclusion due to parental preference with a Black peer using moral reasoning are 7.70 times the odds of a child who positively evaluated same-race inclusion due to parental preference with a Black peer, all else being equal. For the observed portions of moral reasoning used in participants' evaluations of same-race inclusion due to parental preference with a White target child and a Black target child, please see Figure 6.

Figure 6

Children's Moral Consideration Reasoning for Evaluation of Same-Race Inclusion due to Parental Preference



Note. $N = 207$.

Discussion

The current study investigated how Black and White American children ages 6 through 12 years evaluated direct and indirect bias as justifications for same-race inclusion, and how their reasoning related to their evaluations. This study revealed several novel findings. First, children evaluated same-race inclusion due to outgroup dislike more negatively than same-race inclusion due to in-group similarity, with both a White and Black peer. This may be motivated by children successfully identifying outgroup dislike as a form of direct racial bias, and thus evaluating it negatively. Children may not have viewed in-group similarity as a form of bias, and instead focused on group functioning concerns and other non-moral concerns when evaluating it. This interpretation aligns with previous research motivated by the SRD model, which found that

children and adolescents often negatively evaluate intergroup exclusion and inclusion decisions driven by explicit bias (Gönül et al., 2023), but are more likely to accept these behaviors when the scenarios are complex or ambiguous (Cooley et al., 2016).

This finding builds off previous research showing that children evaluate race-based exclusion more negatively than exclusion based off other social group memberships (Burkholder et al., 2020; Killen et al., 2002), and that children accept in-group similarity as a reason for intergroup exclusion (Hitti & Killen, 2015; Stark & Flanche, 2012). This finding may counter previous theories, such as Sherif's functional theory of intergroup behavior (Sherif, 1966; Sherif & Sherif, 1953), which argued that if an individual has in-group preference they also must experience outgroup prejudice. Rather, one possible interpretation of the current finding is that children can have in-group preference, as demonstrated through their more positive evaluation of in-group similarity, while not having outgroup prejudice, as shown through their more negative evaluations of outgroup dislike. This interpretation may provide further evidence for SIDT's proposition that outgroup prejudice only develops under certain conditions (Nesdale & Lawson, 2011). This interpretation may also provide tentative evidence that outgroup dislike and in-group preference are *not* reciprocally related in Black and White American children ages 6 to 12 years.

Even though children may personally display outgroup dislike (Griffiths & Nesdale, 2006; Nesdale & Lawson, 2011), they may still disapprove of outgroup dislike when they witness others using it to justify same-race inclusion. However, further research needs to be conducted to fully understand the implications of children's more positive evaluations of same-race inclusion based on outgroup dislike in contrast to in-group similarity. Future studies can also investigate how children evaluate outgroup dislike across a variety of social groups (e.g., nationality, disability status) to explore whether Black and White American children universally

negatively evaluate outgroup dislike as a justification for intergroup exclusion.

We found that children evaluated peer preference as a less legitimate justification for same-race inclusion than parental preference with a Black peer, but not for a White peer, which partially confirmed our hypothesis (H2). Regarding the Black peer, this finding may be due to Black children's understanding that Black parents may prefer same-race interactions for their children, as communicated via racial-ethnic socialization messages (Simon, 2021; Wang et al., 2019). Both Black and White children in the sample may have recognized the protective reasoning behind Black parents' desire for same-race interactions, due to their awareness of the history of discrimination and the broader societal inequalities that Black individuals face in the United States (Elenbaas & Killen, 2016; Elenbaas & Killen, 2017). This finding provides evidence that, in certain contexts, children do accept parental preference as more legitimate a justification for same-race inclusion than peer preference.

This finding contradicts prior research that found no differences by includer race regarding White and Black American children's responses to vignettes depicting same-race inclusion with White and Black peers with parents present (Burkholder et al., 2021). The prior research focused on children's *predictions* of inclusion, not their evaluation of same-race inclusion that has already occurred, as was assessed in the current study. Includer racial group membership may be more salient when evaluating same-race inclusion that has already occurred as opposed to predicting same-race inclusion that *may* occur. Future research could directly explore whether children give more weight to includer racial group membership or other factors when predicting same-race inclusion versus evaluating same-race inclusion that is already occurring. Future research can also investigate evaluations of peer preference and parental preference in same-race inclusion during early adolescence, as this is a developmental period

when parental supervision declines, and peer approval is of increasing importance (McGuire et al., 2019).

With a White peer, Black participants evaluated same-race inclusion preference, averaged across peer and parental preference, as more acceptable than did White participants. Black participants may have evaluated same-race inclusion as being more positive as they need to be more concerned than White participants about the negative repercussions of negatively evaluating the social decisions of a dominant outgroup member. Alternatively, Black children may have thought that, by including a same-race peer, this meant the White peer could not perpetuate biased behavior towards others Black children. Additional research is needed to more fully understand this finding. Future research should investigate what motivates Black children to evaluate same-race inclusion by a White peer due to parental and peer pressure more positively than White children. For example, future studies could explore the potential roles internalized racism, racial privilege, and child's social group status may play in these evaluations.

Children evaluated same-race inclusion due to parental preference more positively with a Black peer than with a White peer. This may have occurred due to Black children receiving racial-ethnic socialization messages from their own parents, specifically messages about pursuing same-race relationships to avoid potential bias and discrimination (Simon, 2021; Wang et al., 2019). This finding may also have been driven by both Black and White American children's awareness of racial bias and discrimination. Participants may have drawn upon their understanding of the history of discrimination and intergroup relations experienced by Black families within the United States in their evaluations. Prior research has shown that both Black and White American children are capable of applying their knowledge of historical

discrimination and current inequities experienced by marginalized groups in their evaluations of intergroup contexts by middle-childhood (Elenbaas & Killen, 2016; Elenbaas & Killen, 2017).

The current finding connects to our previous finding that children differentiated their evaluations of same-race inclusion due to parental and peer preference with a Black peer, but not with a White peer, likely due to their positive evaluations of parental preference with a Black peer. These two findings together highlight that children take in-group racial group membership into account when evaluating forms of indirect racial bias, specifically parental preference. These findings build off prior research documenting that many Black American children receive messages from their parents and caregiver to prepare them for bias and discrimination (Huguley et al., 2019; Kurtz-Costes et al., 2019). Both of these findings are supported by SRD, as participants gave consideration to multiple forms of knowledge in their evaluations. Specifically, participants gave weight to both psychological knowledge, in the form of the different justifications for the same-race inclusion, and group identity knowledge, in form of the racial group membership of the in-group. Recent research has shown that parents from different racial/ethnic backgrounds prefer their children to play with same-race and same-ethnicity peers (Elenbaas et al., 2024). Future research can further explore why *children* believe parents have same-race inclusion preferences for their children and if these reasons vary by parents' racial/ethnic group memberships.

Participants who rejected parental preference as a justification for same-race inclusion were more likely to use more moral reasoning than non-moral reasoning. Participants who accepted parental preference as a legitimate justification for same-race inclusion were more likely to use non-moral reasoning than moral reasoning. This was found for both a Black peer and a White peer. Participants' moral reasoning may reflect their recognition of same-race

inclusion due to parental preference as a moral concern, as it can contribute to intergroup exclusion, especially when perpetrated by White children. Participants who used non-moral reasoning may not have identified the possible negative outcomes of same-race inclusion due to parental preference, and thus evaluated it positively. These participants may have seen only the "positive" act of a peer being inclusive and mindful of their parents' preferences. This finding aligns with previous research which found that children and adolescents often use moral reasoning when rejecting different forms of intergroup exclusion (Gönül et al., 2023; Rutland and Killen, 2015). This finding shows that moral reasoning is influential in children's evaluations of more complex intergroup exclusion and inclusion scenarios.

The relation between children's evaluations and their usage of moral reasoning was found for both a White peer and a Black peer, despite a difference in how children evaluated same-race parental preference between a White peer and a Black peer. Thus, inclusion race was salient in evaluations of same-race inclusion due to parental preference but did not significantly impact the relation between children's evaluations and their reasoning. Future research should investigate the role of moral reasoning in evaluating other forms of indirect racial bias, such as in-person and virtual microaggressions. These results provide an avenue for future intervention. Learning more about how intergroup exclusion is a moral issue that results in harm to others may increase children's desire to participate in positive cross-race interactions. A direction for further research would be targeting children's and adolescents' abilities to successfully identify different forms of intergroup exclusion and the negative effects of intergroup exclusion as potential mechanisms for change.

We found that children evaluated *all* justifications for same-race inclusion more negatively with age. One interpretation of this is that, with age, children became better at

identifying how same-race inclusion can contribute to intergroup exclusion, and thus they evaluate all the justifications for same-race inclusion more negatively. Furthermore, this finding extends prior research which found that racial bias can begin to develop around 3 years of age and is evident by 7 years of age (Geraci et al., 2024). It is possible that, after 7 years of age, children's racial bias begins to decrease, at least in certain contexts such as evaluating different justifications for same-race inclusion. It is also possible that after 7 years of age, children become more aware of social norms against explicit expression of both direct and indirect racial bias. This finding also reflects a novel extension for research conducted from the SRD model by possibly showing that with age, more children are able to successfully identify same-race inclusion's general potential for intergroup exclusion while differentially evaluating the specific justifications.

Regardless of age, however, children differentially evaluated justifications for same-race inclusion. While younger children evaluated outgroup dislike more positively than older children, younger children also evaluated outgroup dislike more negatively than the in-group similarity. This age-related finding is novel regarding children's evaluations of same-race inclusion. Future research could explore children's evaluations of other justifications for same-race inclusion across the current sample age range to see if there are justifications where children's evaluations do not change, or even increase, with age. Justifications based more directly on group functioning concerns may be more positively evaluated with age, as group functioning concerns become increasingly important in evaluations of intergroup inclusion and exclusion during adolescence (McGuire et al., 2019; Rutland et al., 2010).

Limitations and Future Directions

The present study was a first step towards understanding how children evaluate

justifications for same-race inclusion that reflect direct and indirect racial bias, and socializing agents that are influential in children's evaluations of intergroup encounters. In the current study, about one-third of the participants were Black American children and about two-thirds were White American children. Future research on children's evaluations of same-race inclusions that focuses on Black and White American children should endeavor to have more evenly distributed samples as to better understand children's evaluations of same-race inclusion that might reveal participant race differences for justifications. Black and White American children were chosen for the present study due to unique and significant cultural and historical context of these two groups and their intergroup relations within the United States, as well as the corresponding substantial body of psychological research. The current study is an initial step in deepening understanding regarding children's evaluations of in-group inclusion based on social group membership.

It is important to note that children's evaluations may differ when judging same-race or same-ethnicity inclusion enacted by other racial or ethnic groups in the United States, or in-group inclusion of different social groups like wealth status or religion. It is vital for future studies to explore children's evaluations of same-race and same-ethnicity inclusion with other marginalized racial and ethnic groups as well as other social groups as to gain deeper understanding of children's evaluations of in-group inclusion.

Reasoning data were only collected for same-race inclusion evaluation due to parental preference. Future research should collect data on the reasoning underlying children's evaluations of same-race exclusion due to outgroup dislike, in-group preference, and peer preference to shed more light on children's understanding of these concepts. Additionally, in the current study, a general inclusion scenario was depicted in the vignette. This was necessary

because it allowed us to investigate the effects of the different justifications for same-race inclusion, the includer child's racial/ethnic membership, and participant age. Future research can look at children's evaluations of same-race inclusion across a variety of more specific contexts (e.g., STEM contexts) to better understand the influence of context on children's evaluations of same-race inclusion. Future research can also look at children's evaluations of same-race inclusion across a variety of high- and low-intimacy scenarios. Recent research has shown that children's predictions of cross-race inclusion and evaluations of cross-race exclusion vary between low- and high-intimacy social contexts (Luken Raz & Killen, 2024), so this variance may extend to children's evaluation of same-race inclusion. Lastly, new avenues for research can include exploring evaluations of same-race inclusion with children younger than 6 years of age as to better understand how children's evaluations of same-race inclusion varies across childhood. For example, there is some evidence that babies and toddlers expect others to treat those who are similar to them (e.g., their in-group) well, and those who are not similar to them (e.g., their outgroup) poorly (Hamlin et al., 2013; Geraci & Franchin, 2021), suggesting younger children may also positively evaluate same-race inclusion due to in-group similarity.

The stimuli of the present study did not include depictions of the includer child's friends or parents, leaving participants to make assumptions about their racial and ethnic identities. Future research could explicitly ask children what racial/ethnic identities they assume the includer child's friends and parents to be, and see if participants' evaluations of peer preference and parental preference differ based what racial/ethnic group membership they assume the includer's peers and parents to have.

The central goal of the study was to focus on children's social cognitive evaluations of direct and indirect racial biases. Therefore, we did not include measures that assessed

participants' racial-ethnic socialization experiences. Future studies could explicitly explore how children's racial-ethnic socialization experiences influence their evaluation of intergroup exclusion, including same-race inclusion, as well as how different forms of racial-ethnic socialization may have differing impacts. Future research could also explore how different forms of racial-ethnic socialization and racial group membership possibly interact to influence evaluations of intergroup exclusion.

Conclusions

This study investigated 6 to 12 year old Black and White U.S. children's evaluations of same-race inclusion across a variety of justifications which reflected direct and indirect racial bias as well as two distinct socializing agents, parents and peers. The study shed light on how children's support for same-race inclusion differs between justifications that reflect direct and indirect bias as well as justifications that reflect parental and peer preference. That being part of a majority- or minority-status group may influence why an individual engages in same-race inclusion. The responses of children may also reveal the important role moral reasoning plays in identifying instances of intergroup exclusion and rejecting it. With age, children evaluated all justifications for same-race inclusion more negatively, but still differentiated between the different justifications in their evaluations. Understanding how different justifications influence desires to stay within one's racial in-group versus interacting with racial outgroup members is a necessary step for reducing biased interracial attitudes and promoting positive cross-race friendships in childhood.

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Empirical Paper 3

Children's Perceptions About Gender Outgroup Inclusivity, Cross-Gender Contact, & Positive
Trait Attributions

Children's Perceptions About Gender Outgroup Inclusivity, Cross-Gender Contact, & Positive
Trait Attributions

In-Preparation Submitted to Group R

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Children's Perceptions About Gender Outgroup Inclusivity, Cross-Gender Contact, & Positive Trait Attributions

Peer friendships and interactions are an important aspect of childhood, as they provide children with support, safety, and enjoyment (Rubin et al., 2006; Rose et al, 2022). Positive aspects of peer relationships, however, are undermined when peer groups create group norms that foster in-group loyalty at the expense of fair and equal treatment of others (Rutland & Killen, 2017). For example, children may find themselves in a group that decides to exclude someone from joining because of their nationality (“They aren’t like us; they’re from another country”). Rejecting the group norm about excluding non-Americans may result in being excluded from the group for not showing loyalty even when the group norm is being unfair to others. This expectation reflects a conflict for many children and often creates an obstacle to standing up to others in one’s group (Mulvey et al., 2014; Rutland et al., 2015). Thus, peer group norms about inclusion and exclusion can be difficult to navigate in childhood.

Further, peer norms can influence children’s attitudes and behaviors towards individuals who are perceived to be members of outgroups as well as the likelihood of outgroup friendships (Rutland & Killen, 2017). Peer group norms often include the criteria and reasons for why some individuals are included in one’s group and other individuals are excluded (McGuire et al., 2020; Rutland et al., 2023). Inclusion criteria can include factors that are explicitly related to the goals of the group, such as the expectation that track teams include fast runners and exclude slow runners to win races (Mulvey et al., 2017). However, groups often have inclusion and exclusion criteria that are not explicitly relevant to the goals of the group. For example, if the track team excludes runners who are Muslim because “they are different” or “they are not like us” this creates an exclusive criterion that reflects a prejudicial attitude, unrelated to the goals of the

group (Mulvey et al., 2017; Rutland & Killen, 2017).

Groups without explicit goals, such as a friendship group, may have exclusionary criteria that keep others out for self-protection reasons (e.g., excluding someone who is a bully) or for biased reasons (e.g., excluding someone due solely to their religion, race, or ethnicity) (Rubin et al., 2006; Mulvey et al., 2017). Children are navigating this terrain, learning about how groups work, and what types of group norms are fair or unfair (Rutland & Killen, 2017). Thus, exclusive peer norms, such as excluding peers who are perceived to be “different” based on group identity (e.g., gender, race, ethnicity) when identity is not relevant for the context in which an exclusion decision is made, can contribute to children’s prejudicial reasoning and discriminatory behavior (Mulvey, 2016).

In contrast, inclusive peer group norms, such as valuing diversity and inclusion, can increase children’s positive behaviors towards outgroup members and cross-group friendships (Rutland & Killen, 2017). Given the tendency of groups to have express exclusionary criteria, groups that convey inclusionary criteria may help to reduce bias and increase positive friendships. When an individual states that “we like to play with kids who are different from us” this conveys that their group is inclusive of others even if they may be perceived as a member of an outgroup. Research has found that Anglo-Australian children ages 7 and 9 preferred outgroup members more when their ingroup had an explicit norm of inclusion than when their ingroup had an explicit norm of exclusion (Nesdale & Lawson, 2011). Additionally, 9 to 14 year old American children’s perception that their ingroup is inclusive towards cross-ethnic friendships predicts their interest in cross-group friendships, or friendships with others from different social group backgrounds (Tropp et al., 2014). Given that childhood cross-group friendships have been found to be associated with decreases in bias and prejudice (Killen et al., 2022), inclusive peer

norms may have important implications for intergroup relationships and prejudice reduction in childhood.

Prior research has found that children attend to inclusive norms beyond just those of their ingroup. Positive *outgroup* norms of friendships and fair treatment (e.g., the beliefs that outgroup members will treat your ingroup well or fairly), among children 7 and older, have been shown to significantly reduce intergroup bias through direct or extended intergroup contact (Cameron et al., 2011; Feddes et al., 2009, McGuire et al., 2017) and reduced biased-based behavior in intergroup contexts (McGuire et al., 2017). Despite the evidence highlighting that inclusive peer norms have important implications for intergroup relationships and prejudice reduction in childhood, research has not yet examined whether perceptions of *outgroup* inclusive group norms are related to children's attitudes and behaviors towards gender outgroup members.

Gender Group Membership. It is critical to understand the relation between outgroup inclusive group norms and cross-gender attitudes and behavior, as much of the past research on inclusive group norms has largely focused on racial or ethnic groups (e.g., Cameron et al., 2011; Feddes et al., 2009, Tropp et al., 2014). Gender has received relatively little attention in inclusive group norm research, which has left a gap in the understanding of the effectiveness of inclusive group norms in reducing childhood gender biases. Given that American children accept gender-based discrimination more than discrimination based on other social groups (Killen et al., 2002), the pervasiveness of gender segregation in early childhood (Maccoby, 2002) and that gender bias can limit opportunities for both boys and girl starting early in development (Mulvey & Killen, 2015), understanding how outgroup inclusive group norms can reduce gender bias is essential in reducing current gender-based inequities, which start in childhood and can last a lifetime.

Intergroup contact & desired contact. The relation between gender outgroup inclusive

norm expectations (i.e., whether children expect that their gender outgroup is inclusive towards people who are different from them) and reported contact is crucial to explore given the importance of intergroup contact in reducing intergroup prejudice (Pettigrew & Tropp, 2006; Tropp & Prenvost, 2008). Intergroup contact, defined as positive interactions between members of different social groups, ideally under the conditions of equal status, common goals, cooperation, and authority support (Allport, 1954; Pettigrew & Tropp, 2006), has been associated with children's and adolescents' rejections of race-based exclusion (Ruck et al., 2011, 2015), reduced stereotypic expectations about outgroups (Forbes et al., 2025; Killen et al., 2010), and prosocial bystander behaviors as a reaction to group-based social exclusion (Palmer et al., 2022).

Furthermore, children's self-reported cross-gender friendships are related to having more positive attitudes towards individuals with gender counter-stereotypic preferences (Zosuls et al., 2016) and both girls and boys develop more positive and less negative attitudes towards their gender outgroup when they establish cross-gender friendships (Halim et al., 2021). As research has shown that intergroup attitudes are more malleable in childhood (Lee et al., 2017), it is important to explore possible factors that contribute to increased gender intergroup contact among children, as to more effectively reduce biased attitudes and behaviors based on gender group membership.

The association between gender outgroup inclusive norms expectations and *desired* contact is also important to assess because there may be contextual obstacles to children actually engaging in cross-gender contact, such as gender-based school segregation (Bigler, 1995; Ruble et al., 2006), or group norms or stereotypes restricting cross-gender friendships (Markovits et al., 2001). Thus, desired contact is a way to explore children's desire for cross-gender contact outside of contextual obstacles which may limit their opportunities for cross-gender contact.

Assessing both reported contact and desired contact allows for the examination of possible differences in the relation between gender outgroup inclusive norm expectations and children's self-reported behaviors versus their desired behaviors.

Trait attributions. The association between gender outgroup inclusive norm expectations and trait attributions regarding intelligence and work effort are meaningful to investigate to see if perceived outgroup inclusivity norms have a relation to trait attributions beyond general prosocial trait attributions, such as traits like “smart” and “hardworking.”

Furthermore, it is important to explore this association as beliefs about gender group social status as well as gender stereotypes about intelligence and work emerge early in childhood. For example, American children ages 3 to 6 years old from diverse racial and ethnic backgrounds expect boys to have more status than girls regarding access to resources and decision-making power (Mandalayawala et al., 2020) and White American preschool-age girls are more likely to reject gender-based intergroup exclusion in gender-stereotypic activities than boys (Theimer et al., 2001). By the age of 6, girls are less likely than boys to believe that members of their gender ingroup are “really, really smart” (Bian et al., 2017). The consequences of these stereotypes also emerge early in development, with girls less interested in activities that are labeled as being for children who are “really, really, smart” than boys (Bian et al., 2017), as well as boys and girls ages 5 to 7 both choosing to include girls less in contexts that are labeled as being for “smart” people (Bian et al., 2018). While less work has examined children's gender-work stereotypes, these beliefs are important to explore as gender stereotypes influence children's performance and motivations starting at a young age (e.g., Ambady et al., 2001; Cimpian et al., 2012) and can have consequences that persist across the lifespan (Charles et al., 2018). Therefore, it is vital to find successful avenues for reducing these stereotypic beliefs about

gender in childhood. Prior research indicates that outgroup inclusive norm expectations may be a successful avenue. Thus, the present study aimed to investigate the relations between children's inclusive norm expectations towards their gender outgroup and their reported and desired contact with their gender outgroup, as well as their trait attributions regarding intelligence and work effort towards their gender outgroup.

Theoretical Framework

Social Reasoning Developmental Model

The aims, design, and hypotheses of this study were informed by the social reasoning developmental (SRD) model (Elenbaas et al., 2020). The SRD model integrates social domain theory (Smetana et al., 2014; Turiel, 2002) and developmental social identity theories (Nesdale, 2008; Tajfel & Turner, 1979) to examine individuals' evaluations, reasoning, and decision-making in intergroup contexts. The SRD model argues that children use multiple forms of knowledge in their decision-making processes about social inclusion and exclusion in intergroup scenarios (Elenbaas et al., 2020). These types of knowledge include moral (e.g., fairness, others' welfare), group identity (e.g., group dynamics, group norms, perceptions of group status), and psychological knowledge (e.g., attribution of motivation or justification, mental-state knowledge). Understanding when individuals give priority to one form of knowledge over another is a critical research inquiry (Mulvey, 2016; Rutland et al., 2010). Individuals can even give weight to multiple concerns within a single knowledge domain, such as considering both group norms and perceptions of group status in determining their attitudes and behaviors towards outgroup members.

The SRD model also holds that children increasingly attend to group norms beginning in middle childhood and that with age, children's understanding of group dynamics becomes

increasingly complex (McGuire et al., 2019; Rutland et al., 2010; Rutland & Killen, 2015).

Group dynamics and group norms play a significant role in children's intergroup interactions.

The Present Study

The present study aimed to understand the relationship between children's outgroup inclusive norm expectations (INE) and their reported and desired play as well as trait attributions for "smart" and "hardworking" for gender outgroup members. Gender was selected as the social group of focus, as children in the United States accept gender-based exclusion more than other forms of intergroup exclusion (Killen et al., 2002). Children ages 7 to 12 were investigated to test for age-related patterns in the effect of outgroup inclusive norm expectations on attitudes and behaviors towards gender outgroup members. This age range was selected because children increasingly attend to group norms starting in middle childhood and their understanding of group dynamics becomes increasingly complex with age (McGuire et al., 2019; Rutland & Killen, 2015). Thus, we explored the relations between children's perceived outgroup inclusive norm expectations and their behaviors and attitudes towards gender outgroup members from middle to late childhood.

Hypotheses

Based on the SRD model and prior research demonstrating the effects of group norms on intergroup behaviors and attitudes (Nesdale & Lawson, 2011; McGuire et al., 2017; Tropp et al., 2014), we pre-registered (https://osf.io/akgcp/?view_only=a12b5f400de844468bcb807cf736daaf) the following hypotheses and analytic plan on Open Science Framework.

Inclusive Norm Expectations

We hypothesized that participants would have higher INE for girls than for boys (H1a). This hypothesis was driven by research which suggests that children believe girls care more

about prosocial and communal values than do boys (e.g., Block et al., 2025). As being inclusive can be seen as a form of prosocial behavior, we expect children to have higher INE for girls than boys. We expected that with age, participants' INE would increase for both girls and boys and that the difference in participants' expectations for girls and boys would lessen with age (H1b).

Reported Cross-Gender Play

Based on prior research which found that inclusive group norms are related to children's interest in cross-group contact (Tropp et al., 2014), we expected that participants who perceived that their gender outgroup had an inclusive norm would report more play with cross-gender peers than participants who did not think their gender outgroup had an inclusive norm (H2a). We predicted that, with age, participants who believed that their gender outgroup had an inclusive norm would report more play with their gender outgroup than participants who did not think their gender outgroup had an inclusive norm (H2b).

Desired Cross-Gender Play

We predicted that participants who thought their gender outgroup had an inclusive norm would desire to play more with cross-gender peers than participants who did not think their gender outgroup had an inclusive norm (H3a). Additionally, we hypothesized that with age, participants who believed that their gender outgroup had an inclusive norm would desire to play more with their gender outgroup than participants who did not think their gender outgroup had an inclusive norm (H3b).

Positive Trait Attributions

We hypothesized that boy participants who thought that girls had an inclusive norm would report more positive trait attributions for girls than boy participants who did not think girls had an inclusive norm (H4a). We did not hypothesize this effect of INE for girl participants. We

hypothesized a differential effect of INE on trait attributions based on participant gender, as prior research has shown that group status impacts children's attitudes and behaviors in intergender contexts (Theimer et al., 2001) and American children associate boys with high status and girls with low status by the age of 6 (Mandalaywala et al., 2020). This, paired with salient gender stereotypes in childhood about intelligence and work (e.g., Bian et al., 2017, 2018; Care et al., 2007), led us to expect that girls would endorse boys as being hardworking and smart, regardless of their INE, whereas boys' trait attributions would vary based on whether or not they thought girls had an inclusive norm. We also expected that, with age, boy participants who believed girls had an inclusive peer norm would report more positive trait attributions than boys who didn't believe girls were inclusive (H4b).

Participant Age

The hypotheses related to participant age (H1b, H2b, H3b and H4b) were largely driven by the SRD model, which argues that as children age, group functioning concerns become increasingly important to children's decision-making in intergroup contexts (Rutland & Killen, 2015). As group norms help ensure smooth group functioning (Rutland & Killen, 2017), children may give more weight to group norms with age, including inclusive norms about outgroup members. Thus, children who believed their gender outgroup had an inclusive norm may have given increasingly more weight to this group norm expectation with age, resulting in more reported (H2b) and desired play (H3b), as well as more positive attributions for the traits of hardworking and smart (H4b) for gender outgroup peers with age. Additionally, as prior research has shown that children become less rigid in gender stereotype enforcement with age (Ruble et al 2006), children may have less gender stereotypic expectations regarding differences in inclusive norm expectations between girls and boys with age (H1b).

Method

Participants

Participants ($N = 983$, 502 females) were children from ages 7 to 12 ($M_{\text{age}} = 9.64$ years, $SD_{\text{age}} = .89$ years) from the Mid-Atlantic region of the United States. Participants were 58.5% White/European American, 17.5% Multiethnic, 8.3% Asian American, 5.6% Black/African American, 4.2% Latinx, 0.6% other ethnic and racial groups, and 5.3% not reported. Due to the school and parent report forms, gender was coded as binary (girl/boy). Participants were recruited from six elementary schools with a range of low-middle to middle-high income and a mean of 8.1% of students receiving free and reduced-price meals. The schools from which participants were recruited shared similar school-level diversity such that they were racially and ethnically diverse with a White numeric majority. Data was collected in 2018 and 2019.

Procedure and Assessment

Procedure

This project was approved by the Institutional Review Board at [BLINDED]. All children received written parental consent to participate prior to administration of the study. A survey was administered using Qualtrics. Children independently completed the survey in supervised classrooms with a researcher present to answer questions when needed. The analyses reported here do not represent a program evaluation, but instead use pretest responses to represent general survey data. We evaluated children's reported play, desired play, trait attributions, and inclusive norm expectations for girls and boys. The Institutional Review Board at [BLINDED] approved this study. Children received a small prize (e.g., an eraser) for returning parent consent forms (independent of consent or no consent from parents). Parental consent rate was 86.3%.

Measures

Outgroup inclusive norm expectations. Participants' inclusive norm expectations were measured by items modified from Liben and Bigler (2002) that asked participants to indicate how many members of a depicted group of peers they thought played with kids who are different from them (Figure 1). The measure used for each child was the one that referenced the relevant outgroup. For example, the outgroup inclusive norm expectations measure analyzed for girls read, "Here are some boys. How many boys do you think like to play with kids who are different from them?" Participants responded on a 5-point Likert-type scale (1 = *none*, 5 = *all*).

Figure 1

Inclusive norm expectations items

Here are some girls. How many girls do you think like to play with kids who are different from them?

None A few Some A lot All

☐ ☐ ☐ ☐ ☐

Here are some boys. How many boys do you think like to play with kids who are different from them?

None A few Some A lot All

☐ ☐ ☐ ☐ ☐

Reported cross-gender play. Participants' reported cross-gender play was assessed by items modified from Bierman and McCauley (1987) that asked how often they played with peers from different gender groups (Figure 2). Participants reported their cross-gender play on a 5-point Likert-type scale from 1 ("Never") to 5 ("All of the time").

Figure 2

Reported cross-group play items



Here are some girls. How often do you play with girls?

Never	A little of the time	Sometimes	Most of the time	All of the time
☐	☐	☐	☐	☐



Here are some boys. How often do you play with boys?

Never	A little of the time	Sometimes	Most of the time	All of the time
☐	☐	☐	☐	☐

Desired cross-gender play. Participants' desired cross-gender play was measured by items modified from Bierman and McCauley (1987) that asked how much they desired to play with peers from different gender groups (Figure 3). Participants responded on a 6-point Likert-type scale (1 = *really don't want too*, 6 = *really want too*).

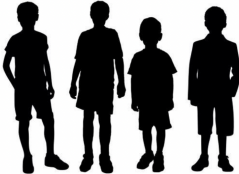
Figure 3

Desired cross-group play items



Here are some girls. How much would you want to play with girls?

Really don't want to	Don't want to	Sort of don't want to	Sort of want to	Want to	Really want to
☐	☐	☐	☐	☐	☐



Here are some boys. How much would you want to play with boys?

Really don't want to	Don't want to	Sort of don't want to	Sort of want to	Want to	Really want to
☐	☐	☐	☐	☐	☐

Trait attributions. Participants' trait attribution beliefs were assessed by items modified from Liben and Bigler (2002) that asked participants to indicate how 1) hardworking or lazy and

2) how smart or not smart they thought a depicted group of peers were (Figure 4). Participants responded on a 6-point Likert-type scale (1 = *Really [negative trait]*, 6 = *Really [positive trait]*). The two individual items were averaged across the depicted gender group memberships to create composites, resulting in two trait attribution outcomes: trait attributions about girls and trait attributions about boys.

Figure 4

Trait attribution items



Do you think these girls are smart or not smart?

Really not smart	Mostly not smart	A little not smart	A little smart	Mostly smart	Really smart
☐	☐	☐	☐	☐	☐

Do you think these boys are hardworking or lazy?

Really lazy	Somewhat lazy	A little lazy	A little hardworking	Somewhat hardworking	Hardworking
☐	☐	☐	☐	☐	☐

Participant Age. Participants' age was collected by parent report.

Data Analytic Plan

Analyses were conducted using R statistical software (Version 4.3.2, R Core Team, 2023). We used follow-up pairwise comparisons to explain significant interactions that had two categorical variables and follow-up linear regression to explain significant interactions that had a categorical variable and a continuous variable. For interactions where participant gender was a significant variable, we conducted follow-up single gender analyses.

To test the hypotheses regarding differences in participants' INE about girls and boys (H1a, H1b), we conducted a repeated measures ANCOVA predicting INE by participant gender,

participant age, and target gender with repeated measures on the last factor. We also tested a three-way interaction between participant gender, participant age, and target gender, as well as the following two-way interactions: 1) participant gender and target gender, 2) participant gender and participant age, 3) participant age and target gender.

To test hypotheses regarding the impact of outgroup INE on reported play (H2), desired play (H3), and trait attributions (H4), we ran a series of linear regression analyses with outgroup INE, participant age, and participant gender as predictors of (1) outgroup reported play, (2) outgroup desired play, and (3) outgroup trait attribution.

To test hypotheses regarding participant gender as a moderator of outgroup INE on trait attributions (H4), we conducted a linear regression predicting outgroup trait attributions by gender, outgroup INE, and age and tested for interactions.

To test hypotheses regarding the impact of participant age on the effect of outgroup INE on each outcome measure (H1b, H2b, H3b and H4b), we ran a series of regression models to determine the significance of an interaction between participant age and outgroup INE, while controlling for participant gender.

For each model, we tested the most complex model first, including all potential interactions between INE, gender, and age. If interactions were not significant, we removed the interaction from the model and tested the simpler model. Final models were those with the lowest AIC.

Results

For correlations and descriptive statistics for key study variables, see Tables S1 in the supplementary materials

Inclusive Norm Expectations

Partially supporting our hypothesis (H1a), a significant interaction between target gender and participant gender was found for INE, $F(4, 960) = 32.92, p < .001, \eta_p^2 = 0.03$, with boy participants having significantly lower INE for girls ($M = 3.16, SD = .95$) than for boys ($M = 3.35, SD = .95$), $p < .001$, and girl participants having significantly higher INE for girls ($M = 3.34, SD = .93$) than for boys ($M = 3.19, SD = .99$), $p < .001$. There was no main effect of target gender on INE, $F(1, 960) = .263, p = .608$. Overall, participants did not hold significantly different INE for girls ($M = 3.25, SD = .95$) and boys ($M = 3.27, SD = .98$).

A main effect of participant age on INE was also found, $F(1, 960) = 13.92, p < .001, \eta_p^2 = .014$. We conducted follow-up linear regressions of participant age on INE for girls and for boys separately. A significant effect of age on INE for girls was found, such that with increasing age, girls had higher INE on average ($B = .11$ ($t(496) = 2.08, p = .04, 95\% \text{ CI } [.006, .21]$), $\beta = .9$). A significant effect of age on INE for boys was found, such that with increasing age, boys had higher INE on average ($B = .18$ ($t(464) = 3.66, p < .001, 95\% \text{ CI } [.08, .27]$), $\beta = .17$), confirming our hypothesis (H1b).

Reported Cross-Gender Play

In our analysis of the effect of INE and participant gender on participants' reported play with cross-gender peers, we found a significant INE by gender interaction ($p = .021$; Table 1), which we followed up with linear regressions to examine the effects of INE for each participant gender group. This analysis revealed a main effect of INE on girl participants' reported play with boys ($B = .15, p < .002, \beta = .14$.) and boy participants' reported play with girls ($B = .28, p < .001, \beta = .26$). These findings demonstrate that participants with higher INE for cross-gender peers reported more play with cross-gender peers, supporting our hypothesis (H2a). The interaction is such that while there is a positive association between INE and reported play with cross-gender

peers for both boys and girls, the effect of INE on reported play appears to be stronger for boys than for girls (Figure 1). This is reflected in that boys with low INE report lower reported play with cross-gender peers than do girls with low outgroup INE, but boys with high INE report even more play with cross-gender peers than do girls with high INE. A significant main effect of participant age was also found such that participants reported more play with cross-gender peers with age ($B = .11, p = .002, \beta = .10$; Figure 2).

Table 1

Main Effects and Interaction Effects for Reported Play with Cross-Gender Peers

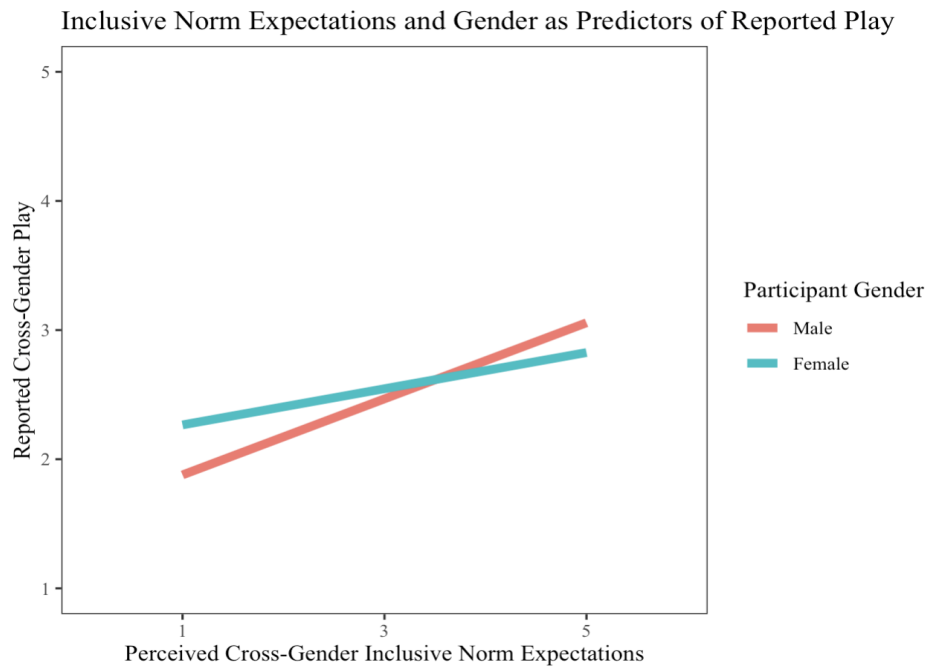
Outcome Variable	Children's Reported Play with Cross-Gender Peers		
	B (SE)	β	CI
<i>Main Effects</i>			
Cross-Gender INE	.29*** (0.04)	.28	.19, .39
Participant Gender	.54* (.22)		.10, .97
Participant Age	.12** (.04)	.10	.04, .19
<i>Interactions</i>			
INE by Participant Gender	-.15* (0.07)	-.14	-0.29, -0.02

Note. Table reports unstandardized regression coefficients (B) with standard error (SE) estimates, standardized regression coefficients (β) for continuous variables as a measure of effect size, and 95% confidence intervals (CI) of the unstandardized regression coefficients. The “Outcome Variable” row reports the main effects of INE, participant gender and participant age on children’s reported play with cross-gender peers from the final model testing the effects of INE, participant gender and participant age. The “INE by Participant Gender,” row reports the interaction effects from the final model. $N = 963$. Significant values are denoted with * = $p < .05$; ** = $p < .01$, *** = $p < .001$.

We did not find a significant interaction effect for participant age on the effect of INE on children's reported play with cross-gender peers. Therefore, our hypothesis (H2b) was not supported.

Figure 1

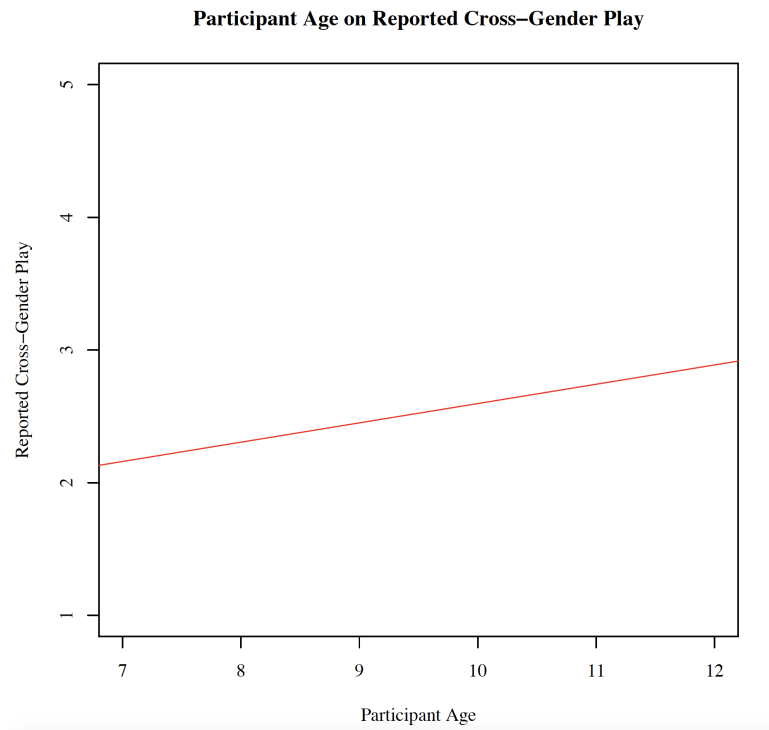
Children's Reported Play with Cross-Gender Peers by Perceived Inclusive Outgroup Norm Expectation Moderated by Participant Gender



Note: Effect of participants perceived cross-gender INE from 1 = “None” to 5 = “All” on reported cross-gender play from 1 = “Never” to 5 = “All” of the time. $N = 963$.

Figure 2

Children's Reported Play with Cross-Gender Peers by Participant Age



Note: Reported Cross-Gender Play from 1 = “Never” to 5 = “All of the time”. $N = 963$.

Desired Cross-Gender Play

There was a significant interaction between INE and participant gender on participants' desired cross-gender play ($p = .015$; Table 2), which we followed up with linear regressions to examine the effects of INE for each participant gender group. This analysis revealed a main effect of INE on girl participants' desired play with boys ($B = .23, p < .001, \beta = .16$) and boy participants' desired play with girls ($B = .44, p < .001, \beta = .29$) such that boy and girl participants with higher INE for cross-gender peers desired more play with cross-gender peers, supporting our hypothesis (H3a). While there is a positive association between INE and desired play with cross-gender peers for both boys and girls, the effect of INE on desired play appears to be

stronger for boys than for girls (Figure 3). This is reflected in that boys with low INE report lower desired play with cross-gender peers than do girls with low INE, but boys with high INE report even more desired play with cross-gender peers than do girls with high INE. A significant main effect of participant age was also found such that participants desired more play with cross-gender peers with age ($B = .14, p = .007, \beta = .08$; Figure 4).

Table 2

Main Effects and Interaction Effects for Desired Play with Cross-Gender Peers

Outcome Variable	Children's Desired Play with Cross-Gender Peers		
	B (SE)	β	CI
<i>Main Effects</i>			
Cross-Gender INE	.46*** (0.07)	.31	.32, .59
Participant Gender	.99** (.31)		.39, 1.59
Participant Age	.14** (.05)	.08	.04, .24
<i>Interactions</i>			
INE by Participant Gender	-.22* (0.09)	-.15	-0.40, -0.04

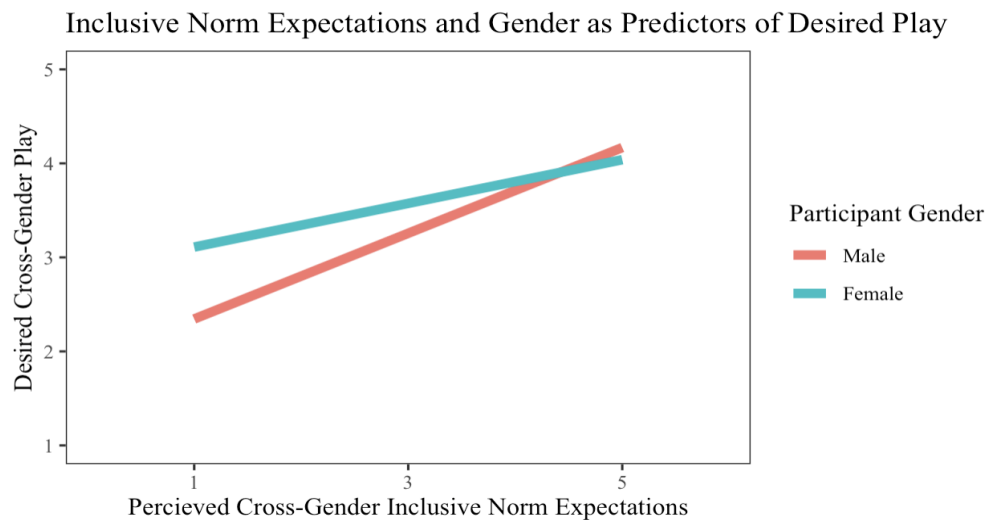
Note. Table reports unstandardized regression coefficients (B) with standard error (SE) estimates, standardized regression coefficients (β) for continuous variables as a measure of effect size, and 95% confidence intervals (CI) of the unstandardized regression coefficients. The “Outcome Variable” row reports the main effects of INE, participant gender and participant age on children’s desired play with cross-gender peers from the final model testing the effects of INE, participant gender and participant age. The “INE by Participant Gender,” row reports the interaction effects from the final model. $N = 961$. Significant values are denoted with $* = p < .05$; $** = p < .01$, $*** = p < .001$.

We did not find a significant interaction effect for participant age on the effect of INE on

children's desired play with cross-gender peers ($B = -.06, p = .23$). Therefore, our hypothesis was not supported (H3b), with age, participants who had higher INE for their gender outgroup did not report increasingly more desire to play with cross-gender peers.

Figure 3

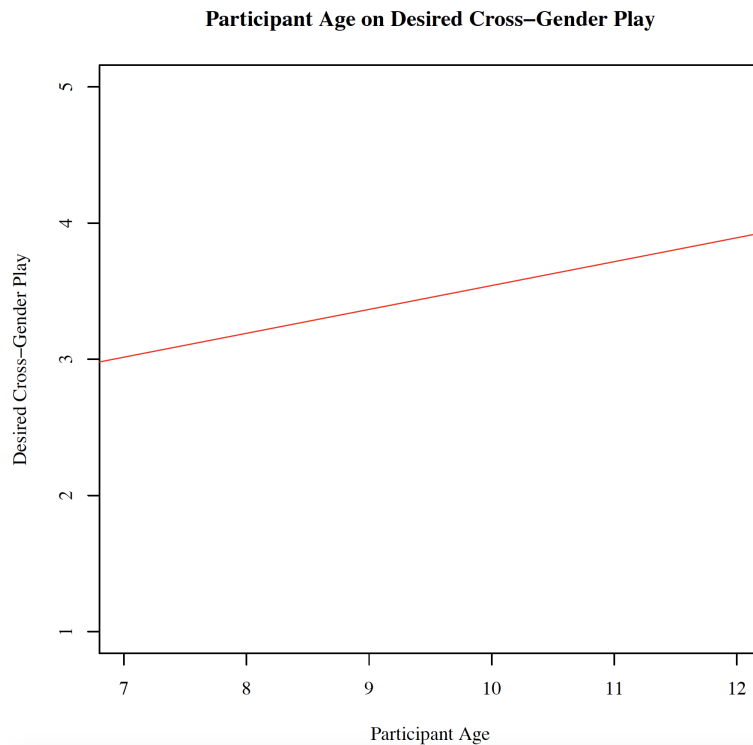
Children's Desired Play with Cross-Gender Peers by Perceived Inclusive Outgroup Norm Expectations Moderated Participant Gender



Note. Effect of participants perceived cross-gender INE from 1 = “None” to 5 = “All” on desired cross-gender play from 1 = Never to 5 = All of the time. $N = 961$.

Figure 4

Children's Desired Play with Cross-Gender Peers by Participant Age



Note: Desired Cross-Gender Play from 1 = “Never” to 5 = “All of the time”. $N = 961$.

Trait Attributions

We did not find a significant interaction effect for participant gender on the effect of INEs on children's trait attributions for cross-gender peers ($B = .03, p = .620$). Rather, there was a main effect of INE on participants' trait attributions for cross-gender peers, such that participants who had higher INE for cross-gender peers had higher positive trait attributions for cross-gender peers ($B = .35, p < .001, \beta = .32$; Figure 5). Partially supporting our hypothesis (H4a), *both* boys and girls with higher INE for cross-gender peers had higher positive trait attributions for their cross-gender peers. A significant main effect of participant age was also found such that participants had higher positive cross-gender trait attributions with age ($B = .15, p > .001, \beta = .13$; Figure 6).

Table 3*Main Effects and Interaction Effects for Trait Attributions with Cross-Gender Peers*

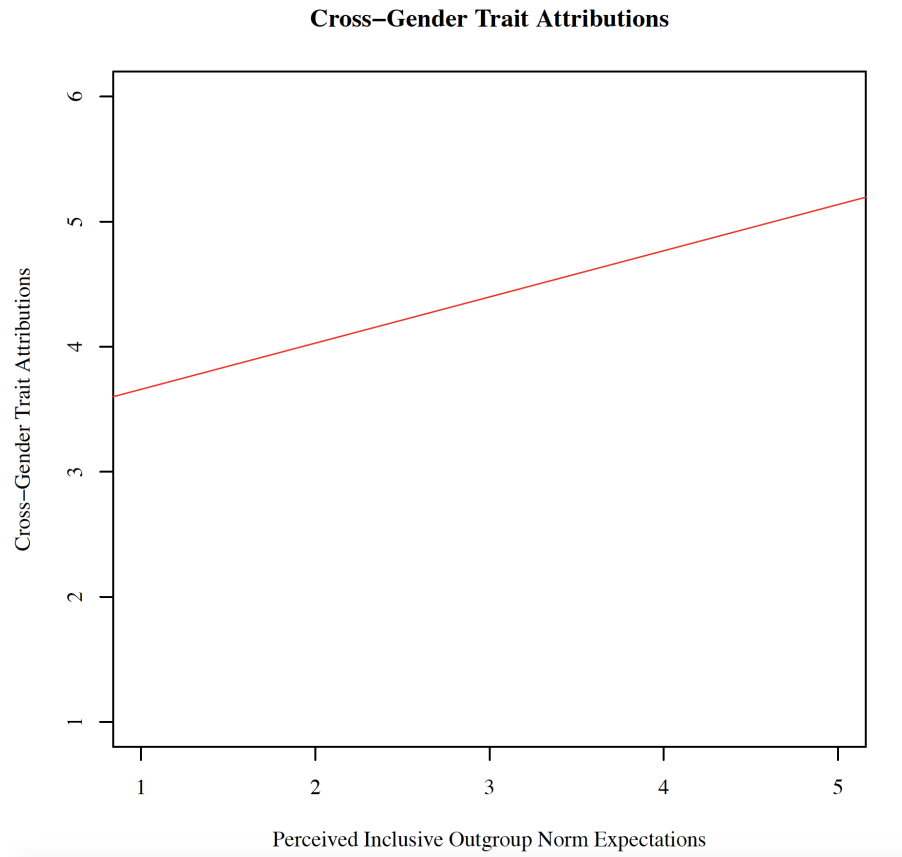
Outcome Variable	Children's Trait Attributions About Cross-Gender Peers		
	<i>B</i> (SE)	β	CI
<i>Main Effects</i>			
Cross-Gender INE	.35*** (.04)	.32	.28, .42
Participant Gender	.004 (.07)		-.12, .13
Participant Age	.15*** (.04)	.13	-.08, .23

Note. Table reports unstandardized regression coefficients (*B*) with standard error (SE) estimates, standardized regression coefficients (β) for continuous variables as a measure of effect size, and 95% confidence intervals (CI) of the unstandardized regression coefficients. The “Outcome Variable” row reports the main effects of INE, participant gender and participant age on children’s trait attributions for cross-gender peers from the final model testing the effects of INE, participant gender and participant age. *N* = 964. Significant values are denoted with * = $p < .05$; ** = $p < .01$, *** = $p < .001$.

We did not find a significant interaction effect for participant age on the effect of INE on children’s trait attributions for cross-gender peers ($B = -.06, p = .39$). Therefore, our hypothesis was not supported (H4b). With age, boy participants who believed girls had an inclusive peer norm did not report increasingly positive trait attributions than boys who didn’t believe girls were inclusive.

Figure 5

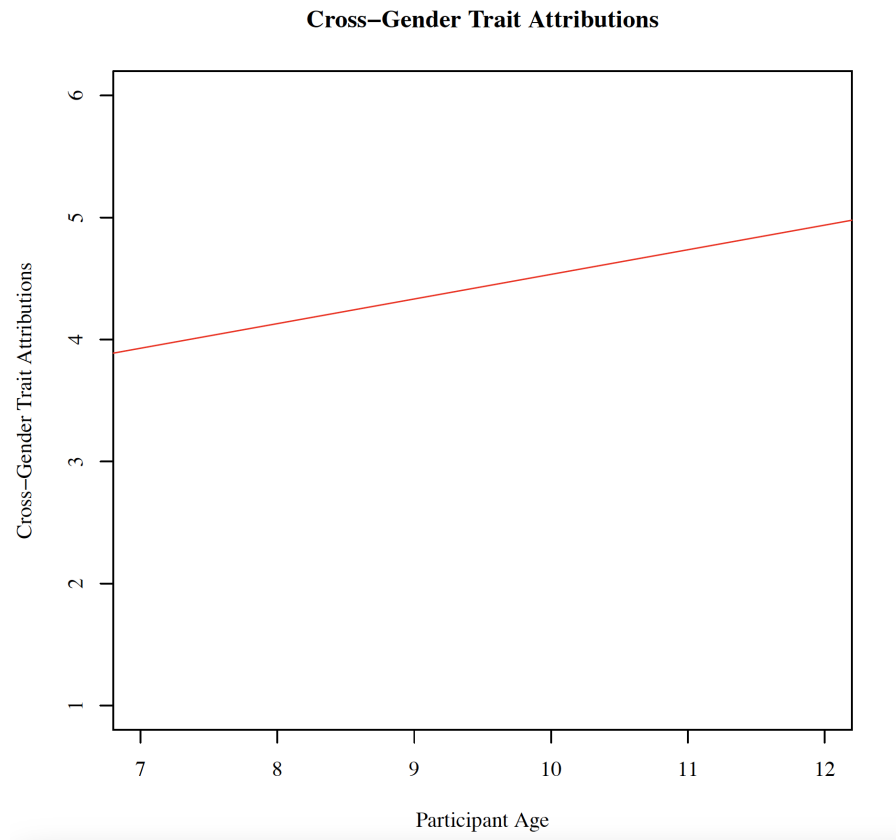
Children's Trait Attributions for Cross-Gender Peers by Perceived Inclusive Outgroup Norm Expectations



Note. Effect of participants perceived cross-gender INE from 1 = “None” to 5 = “All” on cross-gender trait attributions from 1 = “Really [negative trait]” to 6 = “Really [positive trait]”. $N = 964$.

Figure 6

Children's Trait Attributions for Cross-Gender Peers by Participant Age



Note: Cross-Gender Trait Attributions from 1 = “Really [negative trait]” to 6 = “Really [positive trait]”. $N = 964$.

Discussion

The current study revealed several novel findings. Firstly, children held higher inclusive norms expectations (INE) for their gender ingroup than their gender outgroup, and INE became higher for both boys and girls with age. Secondly, outgroup INE impacted children's reported and desired play with gender outgroup members for both boys and girls, such that children with higher outgroup INE reported more play and desired more play with gender outgroup members. Also, children's reported and desired play with cross-gender peers increased with age. Additionally, outgroup INE impacted both boys' and girls' trait attributions. Contrary to our hypothesis, children with high outgroup INE more strongly attributed the traits "hardworking" and "smart" to their gender outgroup members. Lastly, with age, both boys and girls attributed the traits "hardworking" and "smart" to their gender outgroup members more strongly. The current study highlights outgroup INE as a promising avenue for decreasing cross-gender exclusion and the negative impact of childhood gender stereotypes, as well as increasing cross-gender friendships.

Counter to the hypothesis (H1a), children did not have different INE for girls and boys. Rather, children held significantly higher INE for their gender ingroup peers than for their gender outgroup peers, with girls having higher INE for girls than for boys, and boys having higher INE for boys than for girls. It is important to note, despite these differences, both girls and boys expected that "some" of their gender ingroup peers and "some" of their gender outgroup peers would play with individuals who were different from them. This finding may have been driven by children displaying gender ingroup bias, children in the present study may have thought members of their own gender group were more inclusive than members of their gender outgroup. While this finding seemingly contradicts prior research which found that children

believe girls care more about prosocial and communal values than do boys (Block et al., 2025), none of the prior research specifically focused on children's gendered expectations about individuals including people *who are different from them*. It's possible that asking about children's outgroup INE, when the inclusion norm explicitly involves including outgroup members, increases the salience of children's own gender ingroup membership, leading children to assume their gender ingroup will be more inclusive towards peers who are different than their gender outgroup.

Additionally, this builds on prior research documenting ingroup bias in Anglo-Australian children ages 5-12 years, where children more positively rated ethnic ingroup members on a number of traits, including friendly, than ethnic outgroup members (Griffiths & Nesdale, 2006), and prior research detailing gender ingroup bias in American children from diverse racial and ethnic backgrounds (Halim et al., 2017). This also expands on previous research with Non-Arab American children and adolescents ages 12 and 16, where children and adolescents predicted their ethnic-ingroup would include someone based on shared interests, not on group membership, while predicting that their ethnic outgroup would include someone based on group membership, not based on shared interests (Hitti & Killen, 2015). In both Hitti and Killen (2015) and the present finding, American children believe that their ingroup members are more inclusive than outgroup members would be. This assumption could contribute to ingroup inclusion preference and self-segregation in childhood and adolescence within the United States. This finding provides initial evidence that American children ages 7 through 12 display gender in-group bias regarding their INEs for same- and cross-gender peers.

With age, children reported higher INE for members of their gender ingroup and members of their gender outgroup, confirming the hypothesis (H1b). There is evidence that, with

age, children are less interested in enforcing gender stereotypes (Ruble et al., 2006). Additionally, as individuals enter late childhood and early adolescence, the amount of cross-gender friendships they have increases (Feiring, 1999; Poulin et al., 2007). The combination of increased cross-gender contact and reduced desire to enforce gender stereotypes may have resulted in children holding higher INEs for both their gender ingroup and gender outgroup with age. This finding documents that as American children get older, they may increasingly think that gender ingroup members *and* gender outgroup members are more inclusive towards people who are different from them. Future research could capture the reasoning that motivates children's INE to explore possible changes in reasoning with age that may have driven this finding.

Supporting the hypothesis (H2a), we found that children with higher INE for cross-gender peers reported more play with cross-gender peers and that the effect of INE appeared to be slightly stronger for boys than for girls. Children who play with cross-gender peers have evidence that their gender outgroup peers play with children who are different from them, namely themselves. Conversely, children who think that gender outgroup members play with children outside their group can probably remember more instances where they personally played with members of their gender outgroup, as these instances conformed to their expectations. This finding extends previous research which found outgroup norms of friendships and fair treatment reduce intergroup bias (Cameron et al., Feddes et al., 2009, McGuire et al., 2017) as it highlights how perceived outgroup norms regarding kind and inclusive behavior are related to positive intergroup contact in the form of reported cross-gender play. It also confirms prior research showing that children develop more positive and less negative attitudes towards their gender outgroup as they establish and begin cross-gender friendships (Halim et al., 2021).

As repeated instances of play with cross-gender peers leads to the establishment and maintenance of cross-gender friendships, it is consistent with this prior research that higher reported cross-gender play was correlated with higher INE, as INE are likely reflectively of other positive attitudes towards gender outgroup members. Future research could explore the *quality* of play with cross-gender peers, to see if high INE has a relation to high quality cross-gender play, as high quality play (i.e., play of a pleasant, intimate, cooperative and voluntary nature) is more likely to lead to the creation of cross-group friendships (Turner et al., 2007, Turner & Cameron, 2016). Further studies can also examine how bidirectional the relation between INE and cross-gender play is.

Regarding the finding that the impact of INE seems to be stronger for boys than for girls, prior research has found that high status groups are often more accepting of intergroup exclusion and stereotype enforcement (Theimer et al., 2001). Specifically, previous research has found that American preschool boys evaluate cross-gender exclusion in gender-stereotypic activities (e.g., playing with trucks or playing with dolls) more positively than preschool girls do (Theimer et al., 2001). As the high status gender group, the boys in the current study may have been more approving of intergroup exclusion than the girls, and thus the expectation that girls are inclusive towards gender outgroup members may have been more impactful in relation to boys' reported cross-gender play than for girls' reported cross-gender play. Girls may have been more disapproving of intergroup exclusion and more supportive of intergroup inclusion and friendships, regardless of their INE, and thus INE may have been less impactful on their reported cross-gender play than it was for boys. These two findings in conjunction (H2a), show both that INE has a relation to reported cross-gender play for both girls and boys, while providing initial evidence that INE may be especially beneficial for children from a high status group (such as

boys in the current sample). It also adds to the understanding of outgroup INE as a potential mechanism for increased cross-gender play and friendship. It would also be prudent to assess children's cross-gender play using other methodologies, such as observational studies and teacher report or parent report to assess if the association between INE and cross-gender play is found outside of self-reported measures of cross-gender play.

The relation between outgroup INE and reported cross-gender play did not change as a function of participants' age, partially supporting the hypothesis (H2b). Rather, with age, children reported more play with cross-gender peers, for both girls and boys, regardless of their INE. Initially, this finding appears to conflict with prior research motivated by the SRD model that, with age, group functioning concerns, including group norms, become increasingly important in individual's decision-making in intergroup contexts (Rutland & Killen, 2015). However, outgroup INE may be salient enough to children by 7 years of age in relation to reported cross-gender play that outgroup INE does not increase in importance between 7 to 12 years of age. This finding suggests that, on average, the relation between outgroup INE and self-report cross-gender play may not significantly change between 7 and 12 years of age. Future studies can investigate the relation between INE and reported cross-gender play with children younger than the current sample (e.g., ages 4 through 7) to explore whether or not this relation is impacted by age in early childhood.

Confirming the hypothesis (H3a), children with higher INE for gender outgroup members reported a higher desire to play with members of their gender outgroup, and INE appeared to have a stronger effect on desired cross-gender play for boys than for girls. If children think that gender outgroup members play with children outside their group, such as themselves, then children may assume that gender outgroup members would make good playmates, and

subsequently desire to play with gender outgroup members. Alternatively, if children want to play with gender outgroup members, they likely believe that this would be a pleasant play experience, that gender outgroup members would treat them well and be inclusive towards them during the interaction. Thus, these children would likely have higher INE towards gender outgroup members. This finding extends previous research which found that American children ages 9 through 14 years' perception that their ingroup had an inclusive norm (ingroup INE) predicted their high interest in cross-race and cross-ethnic friendships (Tropp et al., 2014). This finding builds on this prior research, by showing that *outgroup* INE are also related to children's interest in positive cross-group contact. It also highlights how INE are related to children's interest in positive cross-*gender* contact, in addition to positive cross-race and cross-ethnic contact. For the current sample, this finding demonstrates that, despite possible contextual obstacles that may stop children from actually engaging in cross-gender contact (Bigler, 1995; Markovits et al., 2001; Ruble et al., 2006), INE were related to both reported and desired cross-gender play, such that children with higher INE reported more and desired more play with cross-gender peers. Future research can investigate if this relation between reported and desired cross-group play with INE is found across social groups or varies based on the specific social group (e.g., wealth, race, ability status).

In regards to the finding that the effect of INE on desired cross-gender contact was stronger for boys than for girls in the current sample, the mechanisms that may have motivated the prior finding that the effect of INE on reported contact was stronger for boys than for girls may have also driven this finding. Namely, based on their high status (Theimer et al., 2001), boys may have been more approving of intergroup exclusion than girls, so the expectation that girls are inclusive towards gender outgroup members may have been more influential in regards

to desired cross-gender play for boys than for girls. Girls may have been more disapproving of intergroup exclusion and more supportive of intergroup inclusion, irrespective of their outgroup INE, and thus INE may have less impact on desired cross-gender contact for girls than boys. As recent research has shown that for American children ages 6 through 12 years of age, expectations of intergroup inclusion vary based on the intimacy of social context (Luken Raz & Killen, 2024), future research can investigate if the intimacy level of the inclusion context influences the relation between INE and children's desired cross-gender play.

Partially supporting the hypothesis (H3b), we found the influence of INE on desired cross-gender contact did not change with age. Instead, with age, children report having a greater desire for cross-gender play, regardless of their INE. This finding demonstrates that for the current sample, the effects of INE on both reported and desired cross-gender contact do not change as a function of age. Future research can explore if the possible influence of *ingroup* INE on reported and desired cross-gender play varies as a function of participant age, to investigate if the possible age effects of INE differ between ingroup and outgroup INE.

INE were not only influential on boys' trait attributions for girls, but were influential for all participants, regardless of gender, partially confirming the hypothesis (H4a). Children with higher INE had more positive trait attributions for their gender outgroup peers. As prior research has shown that positive outgroup norms are related to reductions in intergroup bias (Cameron et al., 2011; Feddes et al., 2009, McGuire et al., 2017), and that positive trait attributions towards ingroup members and negative trait attributions towards outgroup can be a form of intergroup bias (Hewstone et al., 2002), in the current study, higher INE may have been related to reduced intergroup bias in the form of more positive trait attributions for gender outgroup members. This finding adds complexity to research documenting that prior to 7 years of age, American boys are

more okay with gender-based intergroup exclusion than girls (Theimer et al., 2001) and American children are aware of gender-based stereotypes regarding intelligence and work (e.g., Bian et al., 2017, 2018; Care et al., 2007), as children did not seem to weigh either gender group status or these gender-based stereotypes in their trait attributions. Rather, these gender-based stereotypes regarding intelligence and work, as well as participant gender group status, may not be particularly salient when directly asking children if they think that gender outgroup members are “smart” or “hardworking”, such as in the current study. These stereotypes and gender group status may be more salient if children view vignettes that take place in settings where these stereotypes are more salient (e.g., a general classroom or a math classroom) or where group status is more salient (e.g., a scenario where boys have more resources or opportunities than girls).

For a trait attribution that is a composite of hardworking and smart, INE are linked to more positive trait attributions for gender outgroup members, suggesting that INE are related to gender outgroup attitudes for characteristics other than general prosocial characteristics. This finding also indicates that INE are related to more positive outgroup attitudes for children from both high- and low-status gender groups in the United States. Future research can assess if outgroup INE influence children’s resource allocations between ingroup and outgroup members, as to explore if INE influence other forms of ingroup bias. Studies can also explore other trait attributions to see if high INE leads to a halo effect for gender outgroup members.

The hypothesis was partially supported (H4b); instead of the effect of INE on children’s trait attributions becoming stronger with age, children’s trait attributions towards gender outgroup members became more positive with age. By the age of 7, children may believe that gender outgroup peers who are inclusive towards individuals who are different from them are

socially competent, and may believe that this competence expands to other domains such as intelligence and work effort. However, further research is needed to provide evidence for this interpretation of this finding. This finding provides initial evidence that the relation between INE and a composite trait attribution for the traits “working” and “smart” does not vary as a function of age for American children ages 7 through 12. Future research can see if age influences the relation between INE and trait attributions for other traits, such as friendly or trustworthy, to explore if possible age effects on the impact of INE are based on the specific trait that is being endorsed for outgroup members.

Limitations and Future Directions

The present study provides several novel findings regarding the relationship between children’s outgroup INE and their attitudes and behaviors toward gender outgroups. However, there are some limitations. One limitation is that the present study only includes a binary representation of gender, both in the study stimuli and the gender options for participants. Future research could look at how trans and/or gender diverse children perceive these factors and also measure girls’ and boys’ INE about trans and/or gender diverse children to explore the effects of these expectations on the outcome variables examined in the current study. This direction for future research also echoes calls in the literature to incorporate gender diverse children into all areas of developmental psychology, both as participants and also as target groups (e.g., how do cisgender children think about the intergroup exclusion of gender diverse children?) (deMayo et al., 2022).

The current study utilized a survey design, meaning that for all the relations discussed in this paper, directionality cannot be established. Future research should utilize different experimental designs to gain further clarity regarding the directionality (or bidirectionality) of

the significant relations found in the present study.

Conclusion

This study investigated the relation between children's outgroup inclusive norm expectations and their reported and desired play, as well as trait attributions for "smart" and "hardworking" for gender outgroup members, for American children ages 7 through 12 years from a wide variety of racial and ethnic groups. This study deepened understanding regarding how inclusive norm expectations are related to reported and desired cross-gender play for both girls and boys, though the relation may be stronger for boys than girls. The responses of children also revealed that gendered work and intelligence stereotypes as well as gender group status did not play a significant role in children's trait attributions for gender outgroup peers, and that higher inclusive norm expectations were associated with more positive trait attributions. With age, children reported and desired more cross-gender play, reported higher inclusive norm expectations, and more positive trait attributions. Cumulatively, these findings reveal novel ways in which outgroup inclusive norm expectations can benefit both girls and boys, and may be a prudent avenue for reducing biased intergroup attitudes and promoting positive cross-gender inclusion and friendships in childhood.

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General Discussion

These projects showcase how social intimacy (Luken Raz et al., 2024), racial bias (Luken Raz et al., 2025) and group norms (Luken Raz et al., in-prep) influence attitudes and behaviors in intergroup interactions. Luken Raz et al. (2024) examined how the intimacy level of a social context influenced Black and White American children's expectations regarding cross-race inclusion as well as their evaluations of cross-race exclusion. Luken Raz et al. (2025) investigated how incluser direct and indirect bias justifications impacted White and Black American children's evaluations of same-race inclusion, as well as their moral reasoning. Luken et al. (in prep) explored how American children from racial and ethnically diverse backgrounds consider inclusive outgroup norms in regards to their play with and trait attributions towards gender outgroup members.

The Role of Intimacy in Social Evaluations

The intimacy level of a social context influences Black and White American children's predictions regarding and evaluations of interracial exclusion (Luken Raz et al., 2024). Children predicted that interracial inclusion was less likely to occur in a high-intimacy social context than in a low-intimacy social context (Luken Raz et al. 2024). Further, children evaluated interracial exclusion in a high-intimacy social context more negatively than in a low-intimacy social context (Luken Raz et al., 2024). Additionally, Black participants evaluated interracial exclusion across intimacy levels more negatively than White participants (Luken Raz et al., 2024). The intimacy level of a social context as well as the lived experiences that come with being a member of a racially minoritized group, together, played an important role in shaping children's intergroup judgments and attitudes. With age, children increasingly expressed a personal preference towards interracial inclusions while increasingly being aware that their peers may want to engage in same-race

inclusion. This indicates, that with age, individuals balance increasing awareness of the negative concerns of intergroup exclusion with the increasing importance of the peer group and group functioning concerns (Rutland & Killen, 2015).

The Role of Direct and Indirect Racial Bias

In addition to social intimacy influencing children's expectations of and attitudes towards interracial exclusion (Luken Raz et al., 2024), indirect and direct racial bias include justifications impact Black and White American children's evaluations of same-race inclusion. Consistent with literature documenting that children often reject intergroup exclusion based on direct racial bias (Killen et al., 2007), children evaluated same-race inclusion due to direct racial bias, in the form of outgroup dislike, more negatively than same-race inclusion due to indirect racial bias, in the form of in-group similarity (Luken Raz et al., 2025). Furthermore, children evaluated same-race inclusion motivated by parental preference more positively than same-race inclusion due to peer preference with a Black includer child (Luken Raz et al., 2025). Same-race inclusion due parental preference was more positively evaluated when the includer child was a Black child than when the includer child was a White child, highlighting that children weight parental racial group membership when evaluating complex form of intergroup exclusion.

With age, children evaluated all forms of same-race inclusion more negatively, though they differentiated between the specific same-race inclusion justifications. Additionally, negatively evaluating same-race inclusion due to parental preference predicted moral reasoning usage, whereas accepting this form of same-race inclusion predicted non-moral reasoning usage. This finding suggests that moral reasoning (i.e., identifying the possible negative consequences of same-race inclusion and other complex forms of intergroup exclusion) may be a particularly important mechanism for individuals rejecting intergroup exclusion and other forms of racial bias-based

behavior beginning in middle childhood.

The Role of Group Norms

Luken Raz et al. (in prep) extended Luken Raz et al. (2024, 2025) by exploring how related factors, such as group norms, affects American children from diverse ethnic and racial backgrounds' contact with and attitudes towards *gender* outgroup members, instead of racial outgroup members. Luken Raz et al. (in prep) found that children who thought that their gender outgroup played with children who were different from them reported and desired more cross-gender play than children who did not think that their gender outgroup was inclusive, and that this association was seemingly stronger for boys than it was for girls. This suggests that outgroup inclusive norm beliefs may be especially influential in regards to cross-group play for members of high-status social groups, such as boys in this sample. Additionally, children who more strongly attributed positive traits regarding intelligence and work effort towards gender outgroup members also thought that gender outgroup members would play with children who are different from them (Luken Raz et al., in prep).

Children did also demonstrate in-group bias, as both girls and boys thought members of their gender in-group would be more inclusive towards outgroup members than members of their gender outgroup (Luken Raz et al., in prep). These findings further add to the literature assessing the possible role of group norms on cross-gender interactions in childhood. As with any study, there are limitations and areas for future research to address, as will be discussed in the next section.

Limitations and Future Directions

In Luken Raz et al. (2024), a forced choice question paradigm was used to assess children's personal inclusion preferences in a low-intimacy and a high-intimacy social context. A forced

choice question paradigm was used, as forced-choice inclusion decisions do frequently occur in the day-to-day lives of children within the United States, such as when space is restricted or the context is such that “only one more child” can join the group, and these decisions have substantial ramifications for childhood social development (Rizzo et al., 2018). However, there are other instances where children can choose to include multiple individuals out of a larger interested group, and useful information can be gained when assessing whom children think its valuable to include in a social context when there are no restrictions placed upon them by the specific experiential measure. More generally, prior research has found that using a combination of different assessments to measures children’s social group preferences, such as using forced choice measures and continuous ranking scales together, can provide a more nuanced understanding of an individual’s in-group bias than just utilizing a forced choice measure or a continuous ranking scale (deMayo & Olson, 2024). Future research can use multiple forms of assessment to measure children’s social group preferences and attitudes in regards to contextual intimacy, inclusion justifications, and inclusive groups norms.

All the papers in the current dissertation utilized a cross sectional study design. Future research can utilize longitudinal study design as better understand causality and directionality in the relations found between key study variables across the three papers. In Luken Raz et al., (2024) and Luken Raz et al. (2025), children’s intergroup contact was not assessed. Additionally in Luken Raz et al. (in-prep), there was a one singular item that assessed intergroup contact, specifically cross-gender contact, children’s self-reported cross-gender play. Whenever possible, further studies should use a myriad of measures to access intergroup contact, such as multiple forms of self-report measures, parent and teacher report, or direct observation measures, as to better understand the quality and quantity of intergroup contact across children’s different social networks.

Conclusion

Intergroup interactions allow for opportunities to learn from diverse others, deepen positive relationships and have novel experiences. However, intergroup interactions can also allow opportunities for group-based biases to flourish and for individuals from marginalized groups to experience prejudice, social exclusion or emotional and physical harm. The present dissertation included three empirical papers that explore factors that decrease or increase the quality of intergroup interactions. Together, these paper provide support for encouraging moral reasoning, intergroup quality contact and inclusive group norms, as means to reduce negative intergroup actions and forms of ingroup bias. Addressing negative intergroup actions and ingroup bias in childhood is a pressing goal, as there is evidence that these attitudes and behaviors are easier to address prior to adulthood.

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Appendix

This appendix includes the University of Maryland Institutional Review Board approval letters for the experiments conducted in the empirical papers included in this dissertation. Empirical Papers 2 and 3 were part of the same data collection, so they have the same University of Maryland Institutional Review Board approval letter.

Empirical Paper #1: [1798412-1] Peer and parental friendship expectations regarding peer groups

Empirical Paper #2: [1798412-1] Peer and parental friendship expectations regarding peer groups

Empirical Paper #3: [1093717-11] Promoting positive friendships in youth