Intergroup Contact and Prejudice Reduction: Prospects and Challenges in Changing Youth Attitudes

Linda R. Tropp¹, Fiona White², Christina L. Rucinski¹, and Colin Tredoux³

Abstract
Intergroup contact has long been lauded as a key intervention to reduce prejudice and improve intergroup attitudes among youth. In this review, we summarize classic perspectives and new developments in the intergroup contact literature, highlighting both prospects and challenges associated with achieving desired youth outcomes through contact. First, we review literature showing how positive intergroup outcomes can be facilitated through cultivating optimal conditions for contact, as well as by attending to youth’s emotional responses to contact. We then discuss how desired contact outcomes may be inhibited by limited understanding of ways in which contact strategies may affect youth across developmental stages, as well as by limited focus on societal inequalities and intergroup conflict, which require examination of outcomes beyond prejudice reduction. We also review growing bodies of research on indirect contact strategies—such as extended contact, vicarious contact, and online contact—showing many options that can be used to promote positive relations among youth from diverse backgrounds, beyond the contact literature’s traditional focus on face-to-face interaction. We conclude this review by acknowledging how understanding both prospects and challenges associated with implementing contact strategies can enhance our capacity to prepare youth to embrace group differences and build more inclusive societies.

Keywords
intergroup contact, prejudice reduction, youth, intergroup attitudes

Prejudice generally refers to negative evaluations, beliefs, feelings, or intentions toward others due to recognition of their membership in particular social groups (see Brown, 2010). Prejudice has been shown to emerge at very young ages (Aboud et al., 2012; Dunham & Degner, 2010), and it continues to develop and transform as youth enter into adolescence and adulthood (Raabe & Beelmann, 2011), shaping their social experiences and contributing to intergroup tensions and patterns of social exclusion throughout their lives (Killen et al., 2016; Levy & Killen, 2008; Rutland & Killen, 2015). A number of strategies and interventions have therefore been proposed and tested to reduce prejudice among children and youth (see Aboud & Levy, 2000; Grapin et al., 2019), to promote greater social integration, inclusion, and harmonious social relations over the course of their development.

One of the key interventions proposed to reduce prejudice and improve intergroup attitudes and social relations among youth is intergroup contact. In this work, contact typically refers to direct, face-to-face interaction between members of identifiable and distinct social groups, such as racial, ethnic, religious, linguistic, or national groups. A wealth of research including experimental (Page-Gould et al., 2008; White et al., 2020), longitudinal (Binder et al., 2009; Levin et al., 2003; White & Abu-Rayya, 2012), and meta-analytic (Pettigrew & Tropp, 2006; Ülger et al., 2018) studies provide strong evidence that greater contact between members of different groups can reduce prejudice and promote more positive intergroup relations. Such effects tend to be consistent and robust among both children and adults, and across many different types of contact settings, including a range of educational, recreational, and organizational settings (see Pettigrew & Tropp, 2011). Moreover, studies testing the effectiveness of contact interventions have generally shown positive shifts in intergroup attitudes among youth across a variety of national contexts, including the US (Aboud et al., 2012).
Social science researchers have therefore sought to promote opportunities for youth from different backgrounds to experience meaningful and sustained contact with one another (Pettigrew, 1998). Children’s experiences with members of other groups early in life can have long-term consequences for their developing intergroup attitudes and beliefs (Aboud et al., 2003; Ellison & Powers, 1994; Killen et al., 2007). Once formed, attitudes and beliefs about other groups may also become harder to change as children grow older (see Aboud & Levy, 2000; Killen et al., 2007). Thus, providing youth with opportunities for intergroup contact during childhood and adolescence may be especially important for their ability to navigate social relations across group boundaries.

Setting the Stage for Positive Intergroup Contact Among Youth

Overall, then, the social science research literature indicates that greater contact between youth from different social groups can generally lower prejudice and promote a range of positive intergroup outcomes. As the settings in which children and youth spend the majority of their waking hours, schools, and classrooms are naturally considered settings in which contact strategies may be usefully implemented (Crystal et al., 2008). Indeed, some of the greatest long-term benefits of intergroup contact have been revealed through studies of youth in integrated school environments, as these environments offer ample opportunities for fostering sustained and meaningful contact opportunities among youth from different social groups. For instance, White students educated in racially and ethnically diverse schools reported less racial prejudice in adulthood (Wood & Sonleitner, 1996), as well as greater interest in living and working in racially and ethnically diverse environments when they become adults (Merlino et al., 2019). Similarly, racial minority and majority students educated in racially diverse schools report greater comfort with people from other racial and ethnic backgrounds (Kurlaender & Yun, 2007) and are more likely to choose to live and work in integrated spaces later in life (Mickelson & Nkomo, 2012) compared to those educated in more racially homogeneous schools.

Early perspectives in the intergroup contact literature identified particular conditions of the contact situation considered to be optimal to facilitate salutary outcomes from intergroup contact (see Allport, 1954; Pettigrew, 1998; Williams, 1947). These optimal conditions included establishing equal status between groups in the contact situation; cooperation between groups; working together toward common goals; and support for such contact from institutional authorities, norms, and customs. Although these conditions may be described separately for conceptual clarity, when implemented they are typically understood to be interrelated and mutually reinforcing. That is, efforts to establish equal status between groups can be supported by institutional norms and authorities that provide guidance regarding how members of different groups should relate to each other. Additionally, encouraging groups to cooperate should involve some degree of interdependence, obliging them to work together, and to rely on each other, in order to achieve their shared goals.

In practice, what articulation of these optimal conditions means is that rather than having people from different groups simply occupying the same space, intentional efforts should be made to structure contact situations to ensure that members of the different groups have real opportunities to cultivate meaningful and sustained interactions across group boundaries (Pettigrew & Tropp, 2006; 2011). In the sections that follow, we offer specific examples of ways in which optimal conditions can be operationalized and implemented in schools and classrooms to enhance the potential for intergroup contact to promote positive shifts in intergroup attitudes among youth.

Seeking to Establish Equal Status Between Groups in the Classroom

The numerical and cultural representations of different racial and ethnic groups in the classroom may serve as cues that inform children of the relative statuses of different groups (Bekerman, 2016; Tropp & Al Ramiah, 2017). As one illustrative example, Wright and Tropp (2005) examined how ethnic proportions and language(s) of instruction shaped the inter-ethnic attitudes of young (non-Hispanic) White children. These authors observed that ethnic biases in attitudes and friendship preferences were lower among White children in ethnically mixed classrooms in which both Spanish and English were used for instruction than among White children in predominantly White classes in which only English was used. Teachers’ use of both Spanish and English for instruction in ethnically mixed classrooms may have signaled to children that the languages and cultures of both groups are to be valued and respected.

Cooperative Interdependence in Schools and Classrooms

Many empirical and practical examples demonstrate how cooperative interdependence can enhance the capacity of youth from different racial and groups to interact effectively, which may in turn facilitate the development of positive intergroup attitudes. Teachers and school staff can
implement and support children in using cooperative, interdependent learning strategies, which encourage youth from different groups to work together and learn from each other (Aronson et al., 1978; Walker & Crogan, 1998). Cooperative, interdependent learning strategies not only promote academic achievement but they can also foster positive intergroup attitudes and relations among diverse groups of children in the classroom (Aronson et al., 1978; Skinner & Meltzoff, 2019; Slavin, 1980; Walker & Crogan, 1998). Cooperative, interdependent learning strategies may also be used to encourage youth from different groups to identify common goals toward which they can work collaboratively, both in their classrooms and within their larger communities—for example, to design playgrounds, paint murals, care for community gardens, organize civic events that could benefit their communities as a whole (see Tropp & Saxena, 2018), or develop water-saving, energy-efficiency, and recycling strategies to create a more sustainable environment (see White & Abu-Rayya, 2012; White et al., 2014; White et al., 2015). Cooperative learning strategies are thought to be effective because they facilitate empathy and perspective-taking across groups; thus, the goal of improving intergroup relations via cooperative learning strategies may overlap with other key goals of public schools, including promoting social-emotional learning (Grapin et al., 2019) and civic participation in increasingly diverse societies (Wells et al., 2016).

Supportive Institutional Norms in Schools and Classrooms

The norms youth perceive in the contexts of their schools and classrooms also provide important information regarding the degree to which intergroup contact and friendly relations across racial and ethnic lines are deemed valuable or appropriate. When students believe that teachers and principals support positive cross-ethnic relations, they themselves report greater interest in developing cross-ethnic friendships over time (Jugert et al., 2011; Tropp et al., 2016). Additionally, the norms students ascribe to their peers and classmates can further shape their openness to cross-group relations (Abrams, 2011; Al Ramiah et al., 2014; Feddes et al., 2009; Jugert et al., 2011; Tropp et al., 2014; White et al., 2009). Further research suggests that substantive classroom discussions about race and racism can improve interracial attitudes among children and youth (Aboud & Fenwick, 1999; Hughes et al., 2007; Skinner & Meltzoff, 2019); it is possible that students perceive teachers’ willingness to engage in these topics as an implicit or explicit signal of their support for positive intergroup relations. Overall, then, research suggests that youth may develop more positive intergroup attitudes and be more willing to engage in contact with other racial and ethnic groups the more they perceive support for cross-group relations in educational environments.

Emotional and Relational Processes in Intergroup Contact

Beyond focusing on conditions of school and classroom settings, newer generations of contact research have emphasized the central roles of emotional and relational processes in understanding intergroup attitudes among youth from different racial and ethnic groups. Indeed, some theorists have proposed that optimal conditions for intergroup contact be construed in terms of the emotions and relations that constitute the development of cross-group friendships (see, e.g., Cook, 1962; Pettigrew, 1998; Wright et al., 2005).

This focus on emotional and relational processes involves both the kinds of contact that are most likely to improve intergroup attitudes, and the kinds of positive outcomes that might be expected from such contact (see Pettigrew & Tropp, 2011). Meta-analytic research including studies of children, adolescents, and adults consistently shows that greater cross-group friendships are associated with lower intergroup prejudice (Davies et al., 2011). Such encouraging effects of cross-group friendship are especially likely to emerge when friendship activities involve the building of mutual trust (Grütter & Tropp, 2019), and when affective dimensions of prejudice such as feelings and emotions toward outgroup members are examined (Tropp & Pettigrew, 2005). Longitudinal studies of children, adolescents, and adults from many racial, ethnic, and national groups also show that greater numbers of cross-group friendships typically predict more positive intergroup attitudes over time (e.g., Feddes et al., 2009; Gaias et al., 2018; Levin et al., 2003; Swart et al., 2011), though these associations are often stronger for members of higher-status, majority groups (e.g., Binder et al., 2009). Relatedly, experimental studies show that both developing new cross-group friendships (Page-Gould et al., 2008; Wright et al., 2005) and reflecting on existing cross-group friendships (Page-Gould et al., 2010) can improve intergroup attitudes.

Cross-group friendships may be particularly powerful for reducing prejudice because of the emotional bonds that develop through close cross-group relationships (Davies et al., 2011). Emotional bonds across group lines can transform people’s understandings of relationships between groups, such that they often become motivated to treat other members of their friends’ groups as well as they would be inclined to treat other members of their own groups (Aboud et al., 2003; Pettigrew, 1998; Wright et al., 2002). Thus, the more youth cultivate close emotional ties and meaningful relationships across group lines, the more likely it is that they will develop more positive attitudes toward other groups.

In addition to the emotional ties afforded by cross-group friendships, other work in the contact tradition has sought to identify emotional pathways that help to account for the effects of contact on prejudice reduction (Tropp et al., 2017; White et al., 2015). A growing body of research suggests that the prejudice-reducing effects of contact tend to occur
Reducing Anxiety

Although experiencing anxiety and stress during cross-group interactions is quite common (Blascovich et al., 2001; Littleford et al., 2005; Stephan, 2014; Stephan & Stephan, 2000; Trawalter et al., 2012), greater intergroup contact can help to alleviate varied forms of intergroup anxiety and stress, as well as the corresponding negative expectations that we so often associate with outgroup members (see Kauff et al., 2021; Tropp, 2021). Experimental research suggests that even laboratory-induced contact between groups—where members of the different groups engage in friendship-building activities with each other—can attenuate stress responses and enhance people’s willingness to initiate future cross-group interactions (Page-Gould et al., 2008). Longitudinal studies of high school and university students from the United States, South Africa, Europe, and Australia also show that positive contact between different racial and ethnic groups contributes to lower feelings of intergroup anxiety (Binder et al., 2009; Levin et al., 2003; Swart et al., 2011; White & Abu-Rayya, 2012; White et al., 2014). Both meta-analytic research (Pettigrew & Tropp, 2008) and survey studies with elementary and secondary school students (Giamo, 2009; Vezzali et al., 2010) indicate that reduced anxiety is a key pathway by which contact between groups improves intergroup attitudes.

Building Empathy

Research also shows that having greater intergroup contact can enhance people’s capacity to take other groups’ perspectives and empathize with their concerns (Batson et al., 2007; Stephan & Finlay, 1999), emotional responses that are especially important to cultivate among members of historically advantaged racial groups (Tropp & Barlow, 2018). As people develop relationships with members of other groups, and begin to feel more psychologically connected to them, they often come to see the plight and experiences of members of those groups as increasingly relevant to their own lives (Wright et al., 2002). Thus, the more that youth experience contact with diverse others, the more they can grow accustomed to practicing empathy and broadening their circles of moral concern (Weissbourd & Jones, 2017; see also Tropp & Barlow, 2018).

In a study with White British students, Turner and her colleagues (2007) demonstrated that greater closeness to Asian people—fostered through greater levels of intimate self-disclosure during contact—corresponded with more positive attitudes toward Asian people; this effect was largely due to increased feelings of empathy toward Asian people, which likely resulted from their close contact. More broadly, the processes of reducing anxiety and building empathy may function sequentially, such that anxiety reduction may be most crucial at the early stages of contact, and greater empathy may then be cultivated once intergroup anxiety has been reduced (Pettigrew & Tropp, 2008; Swart et al., 2011). Thus, by reducing anxiety when members of different groups initially come into contact, we may set the stage for greater empathy and openness in subsequent cross-group interaction.

Cognitive Processes in Intergroup Contact: Altering the Salience of Social Categorizations

Along with focusing on emotional and relational processes in intergroup contact, a long-standing tradition of intergroup contact research has considered how cognitive processes, such as processes of social categorization, may shape prospects for achieving positive outcomes of intergroup contact.

Decategorization and Categorization

Early on, Brewer and Miller (1984) noted that an emphasis on group differences—particularly at the early stages of intergroup contact—can fuel greater discomfort and tension between groups. Thus, these authors recommended that social categories be made less salient during contact, through a process of decategorization. Decategorization strategies seek to personalize outgroup members through directing attention toward their individuating characteristics (Fiske & Neuberg, 1990) and the sharing of personally relevant information (Miller, 2002). By reducing the focus on differences between groups through such processes of decategorization, members of different groups can begin to move beyond perceiving each other merely on the basis of group memberships (Bettencourt et al., 1992; Miller et al., 1985).

Consistent with this perspective, a number of studies with children have shown that the more salient group differences are, the more likely it is that children will develop intergroup biases (e.g., Bigler et al., 1997; Dunham et al., 2011; Files et al., 2010). Moreover, prospects for reducing intergroup biases may be enhanced the more that personalizing or contextualizing information about outgroup members is made available to children (e.g., Nesdale et al., 2010; Verkuyten & DeWolf, 2007). Nonetheless, other scholars have argued that a certain degree of category salience during intergroup contact—or categorization—is necessary for any positive effects of contact with individual outgroup members to generalize into positive attitudes toward the outgroup as a whole (see Brown & Hewstone, 2005; Brown et al., 2007; Hewstone & Brown, 1986; Van Oudenhoven et al., 1996; Voci & Hewstone, 2003). In an attempt to reconcile these approaches, Pettigrew (1986; 1998) has proposed that they be viewed from a sequential perspective. During the initial...
stages of contact, diminishing a focus on social categorization might help to reduce discomfort and tension and facilitate group members’ efforts to get to know one another. Then, once contact is established and a certain level of rapport has developed across group lines, the salience of social categories can be re-introduced so that positive shifts in attitudes resulting from the contact can be more likely to generalize into positive intergroup attitudes on the whole.

Recategorization into a Common Group

Further theorizing about cognitive processes in intergroup contact has focused on recategorization—or the process by which members of different groups may be recognized as belonging to a common group (see Gaertner & Dovidio, 2000 for review). Identifying a common group to which members of different groups can all belong is understood to foster positive intergroup attitudes, because sharing a common group identity typically corresponds with greater perceptions of intergroup similarities and a greater tendency to grant former outgroup members the same kinds of treatment that would typically be reserved for ingroup members (Dovidio et al., 1997; Gaertner et al., 1994; Molina & Wittig, 2006; Stone & Crisp, 2007). Several studies have shown encouraging effects of recategorization processes among youth (e.g., Gaertner et al., 2008; Guerra et al., 2013; Houlette et al., 2004; White & Abu-Rayya, 2012; White et al., 2014). As one notable example, Vezzali et al. (2015) observed that, following destructive earthquakes in Italy, Italian elementary school children were more likely to see themselves and immigrants as part of a common group (i.e., child victims of the earthquakes), which corresponded with their greater willingness to have contact with and provide support to immigrant classmates.

Challenges Associated with Implementing Contact Strategies Among Youth

As summarized above, the broader research literature on intergroup contact suggests many pathways through which positive intergroup attitudes may be achieved among youth. Nonetheless, it is important to highlight that the latent potential for intergroup contact to promote salutary intergroup outcomes is not always realized. Indeed, some scholars have argued that the conditions that engender positive contact are often not present in environments where contact between groups naturally unfolds (Dixon et al., 2005), and the prospect of engineering contact environments so that they are optimal can seem somewhat utopian (Durheim & Dixon, 2018). There are a few reasons why this might be the case, and in the sections that follow, we focus on several key challenges that may diminish the potential of intergroup contact to foster positive intergroup attitudes among youth.

Developmental Stages of Children and Adolescents

One challenge involves specifying contact strategies that may be effective for reducing prejudice and fostering positive intergroup relations at different stages of development. Attitudinal biases based on social categories, such as race and ethnicity, often emerge within the first few years of life (Raabe & Beelmann, 2011) and appear to be accompanied by the development of perceptual and recognition biases in favor of racial groups present in their social environment (McKone et al., 2019). Young children who typically only interact with members of their racial groups are especially likely to develop biases in favor of their own racial groups (Nesdale, 2017). Furthermore, there is evidence that children who develop prejudices at younger ages are less likely to encounter or attend to information or experiences that might disconfirm their beliefs (Aboud et al., 2012). As such, children’s early tendencies toward racial bias and prejudice may, to some degree, be self-reinforcing.

As children grow and their social cognitive understanding develops, they make gains in their ability to understand social concepts such as “race,” as well in their ability to empathize and take the perspectives of others (Grapin et al., 2019). It is therefore reasonable to expect that varied intergroup contact strategies may function differently for children at different stages of development. Though work in this area is limited and undertheorized, there is some evidence that intergroup contact may generally be more effective in promoting positive attitudes among children as compared to adults (Pettigrew & Tropp, 2006; Miles & Crisp, 2014; Tefera et al., 2011), and in younger children compared to older children (e.g., between ages 7 and 10; see Killen et al., 2007). Relatedly, recent meta-analyses find that prejudice-reduction interventions based on intergroup contact may be especially effective for younger children as opposed to youth in middle and high school (Beelmann & Heinemann, 2014; Ulger et al., 2018). Moreover, children’s initial exposure to and experiences with members of other groups are likely to be especially influential in shaping their intergroup attitudes (Al Ramiah, Hewstone, Voci et al., 2013). Thus, direct contact experiences and positive representations of outgroup members and cross-group interactions—such as those depicted in videos and stories that allow for verbal and nonverbal modeling—may be particularly useful strategies to reduce prejudice and improve intergroup attitudes among younger children (Skinner & Meltzoff, 2019).

By contrast, other contact-based strategies may be more effective in shifting intergroup attitudes among older children and adolescents. For instance, interventions focused on processes of social categorization (e.g., recategorization into a common in-group identity) tend to be more effective among students at the middle and high school levels, as compared to the effects observed among younger children (Ulger et al., 2018). In addition, as they transition from childhood to adolescence, youth’s perceptions of norms—among their peers,
and within their broader social environments—gain prominence in shaping their interest in and willingness to engage in contact with people from other racial and ethnic groups (Jugert et al., 2011; Schachner et al., 2019; Tropp et al., 2016). While these initial patterns are suggestive, more empirical and theoretical work is needed to enhance our understanding of ways in which distinct contact strategies may be more or less effective for reducing prejudice among youth at different developmental stages.

**Positive and Negative Dimensions of Contact Experiences**

Another issue to consider is that the more often youth engage in intergroup contact, the more likely they are to experience both positive and negative intergroup encounters (see Aboud & Brown, 2013; Hayward et al., 2017). Indeed, just as positive intergroup experiences are likely to foster more positive intergroup attitudes and greater willingness for future intergroup contact, negative intergroup experiences may curb the development of positive intergroup attitudes and hinder youth’s openness to engaging future intergroup contact (see Graf & Paolini, 2017; Tropp et al., 2017).

Given that the intergroup contact literature has historically focused on the role of positive contact in prejudice reduction, the potential effects of negative intergroup contact have remained relatively understudied (see Dixon et al., 2005; Schafer et al., 2021)). Although some earlier work had suggested that any single negative contact experience would have a stronger impact on intergroup attitudes and behaviors than any single positive contact experience (e.g., Barlow et al., 2012), findings on this point now appear to be mixed (see Graf et al., 2014; Hayward et al., 2017; Schafer et al., 2021)). Nevertheless, a growing body of literature indicates that, on the whole, people tend to experience more positive intergroup contact than negative intergroup contact, such that the potential for positive contact to promote positive intergroup attitudes often outweighs the detrimental effects of negative contact by occurring more frequently (see Graf & Paolini, 2017; Hayward et al., 2017; Schafer et al., 2021)).

**Societal Inequalities and Status Differences in Contact**

As we consider the possible effects of positive and negative intergroup contact, we must also acknowledge the many ways in which societal inequalities and group differences in status are likely to shape youth’s intergroup contact experiences. Youth from racial minority backgrounds are especially likely to experience negative contact, as they are more often the targets of prejudice and discrimination than their racial majority peers (Graham et al., 2009; Quintana, 2011; Quintana & McKown, 2008). Experimental and diary studies also show that exposure to prejudice and discrimination can undermine racial and ethnic minority students’ willingness to engage in contact with members of the White majority (Shelton & Richeson, 2006; Tropp, 2003). Moreover, through various forms of socialization (see, e.g., Hughes et al., 2006; Killen et al., 2015), youth from historically disadvantaged or minority backgrounds may be cautioned about being excluded or discriminated against in relations with members of historically advantaged or privileged groups (Hughes et al., 2016; Wang et al., 2020).

Given these trends, it is perhaps not surprising that the salutary effects of intergroup contact tend to be weaker among youth from racial and ethnic minority groups than among youth from the racial majority group (e.g., Binder et al., 2009; Tropp & Pettigrew, 2005). The motivations and concerns they bring to contact encounters are also likely to differ among youth from historically disadvantaged racial and ethnic minority groups, as compared to their historically advantaged racial majority counterparts. Generally, members of historically disadvantaged minority groups seek empowerment and to address structural inequalities, whereas members of historically advantaged majority groups seek reassurance of their moral integrity and to avoid discomfort associated with group differences in status (e.g., Shnabel et al., 2009; Saguy et al., 2009). As one illustrative example, Jewish youth participating in an exchange program in Israel–Palestine showed positive emotional responses to discussions about peaceful coexistence, whereas Arab youth in the program showed somewhat positive emotional responses to discussions of peaceful coexistence, yet much more positive emotional responses to questions of contested land and nationality rights (Hammack & Pilecki, 2015).

Relatedly, contact strategies that focus on categorization—and particularly those that recategorize to a common group in which youth from different racial and ethnic groups can all belong—may be received quite differently among those from historically disadvantaged and advantaged groups (Dovidio et al., 2009). For instance, in the US context, White university students preferred to focus only on a common group identity (e.g., identifying as “Americans”), whereas Black university students preferred a dual focus on both the common group identity and their own distinct racial subgroup identity (e.g., identifying as both “American” and “Black”). This could well be due to a tendency for White people to feel more fully represented within the superordinate category of “American” than Black people (Devos & Banaji, 2005; Mummedney & Wenzel, 1999), as well as the importance of maintaining distinct cultural identities and recognizing historical inequalities for Black Americans, given that these are not as well represented within the “American” cultural prototype (see Hornsey & Hogg, 2000). Thus, contact strategies that seek to employ aspects of recategorization should be coupled with education about the distinct socio-historical positions and experiences of groups than comprise the
common group, to maximize their effectiveness with youth (see Skinner & Meltzoff, 2019; Ülger et al., 2018).

Together, these lines of research suggest that more attention must be granted to potential contact outcomes beyond the oft-stated goal of prejudice reduction. Indeed, in recent decades, many scholars have advocated for enhancing our collective focus on outcomes related to prospects for achieving social change and reducing societal inequalities between groups (see, e.g., Dixon et al., 2005; Dovidio et al., 2009; MacInnis & Hodson, 2019; Reich, 2007; Saguy et al., 2013; Wright & Lubensky, 2009). Moreover, research in this area shows asymmetries in the effects of contact for historically disadvantaged and advantaged groups: greater intergroup contact is typically associated with greater recognition of inequality, and greater support for social change to promote equality, among members of historically advantaged groups; by contrast, greater intergroup contact is typically associated with lesser recognition of inequality, and less support for social change to promote equality, among members of historically disadvantaged groups (see Hässler et al., 2020 for a recent review).

A similar focus on outcomes related to social change—and taking action to address inequality—has emerged among scholars studying children and youth (Checkoway & Aldana, 2013; Staub, 2019). For instance, contact-based interventions with Italian elementary school children have shown promise in improving not only their attitudes toward immigrant peers, but their motivation to extend help to those peers (Vezzali, Stathi, et al., 2015). Developmental research also indicates that children’s understanding and ability to identify group-based discrimination evolves over early and middle childhood, reaching a relatively complex understanding of both explicit and subtle forms by about age 10 (Brown & Bigler, 2005). Related research shows that the more intergroup contact children and youth experience, the more likely they are to recognize the wrongfulness of race-based exclusion (Crystal et al., 2008).

Around the same stage of development, children also appear to internalize social norms inhibiting the overt use of racial categories to identify other people (e.g., Apfelbaum et al., 2008, 2010; Pauker et al., 2015). Thus, it may be critical to ensure that the intergroup contact youth experience includes explicit discussion of societal inequalities and their effects on youth’s lived experiences, to foster greater motivation for equity and efforts toward social change among youth from all groups (MacInnis & Hodson, 2019). Promising research along these lines suggests that structured intergroup dialogue among youth from diverse racial and ethnic backgrounds have the potential to enhance awareness of racism and interest in taking action to promote racial equity (Aldana et al., 2012; Spencer et al., 2008; Wayne, 2008). Still, further research is needed to determine the contact conditions that most effectively promote these outcomes, as well as reduced prejudice, among children and youth.

Racial and Ethnic Composition of Schools and Classrooms

Another challenge associated with using contact-based strategies to reduce prejudice among youth involves the racial and ethnic compositions of the classrooms and schools in which youth are educated. In some cases, the racial and ethnic compositions of classrooms and schools have been used as proxies for students’ experiences of interracial contact. For example, some studies grounded in the intergroup contact tradition have shown that preschool- and elementary-aged children who attend more racially and ethnically diverse schools tend to show lower levels of prejudice and see greater potential to become friends with children from other racial and ethnic groups (McGlothlin & Killen, 2010; Rutland et al., 2005).

Granted, students in more diverse settings generally do have more opportunities for intergroup contact and are more likely to build friendships across racial lines, as well as to report lower levels of racial prejudice (Graham, 2018; Hallinan & Smith, 1985; Hallinan & Teixeira, 1987; Hooijsma & Juvonen, 2021; McGlothlin & Killen, 2010; Quillian & Campbell, 2003; Syed et al., 2018; Wright & Tropp, 2005). Nonetheless, while related, composition of and contact within the educational context are not one and the same. From South Africa to the United States, patterns of social interaction in schools often reveal a lack of social interaction among students from different racial backgrounds at the micro-scale (Schofield, 1979; Tredoux et al., 2017). For instance, in one Johannesburg school with approximately equal proportions of Black and White children, apparently integrated collections of children in tuckshop queues were shown to interact almost exclusively with same-race peers (Clack, 2007, cited in Tredoux et al., 2017). Relatedly, even when efforts are made to maximize classroom diversity to nurture relationships-building across racially diverse groups of children (Graham, 2018), students may sometimes elect to self-segregate into distinct racial clusters in non-classroom spaces at school (Clack et al., 2005; Schofield, 1979; Tatum, 2007).

Disproportionality in assigning children from distinct racial or ethnic backgrounds to different academic tracks also serves as an important cue to children regarding the status of different groups in school (Khmelkov & Hallinan, 1999). Such forms of academic tracking may not only serve to reinforce disparities in performance between groups of students (Mickelson, 2015), but they can have downstream consequences for students’ friendship choices and the development of cross-race friendships (Kubitschek & Hallinan, 1998; Leszczensky & Pink, 2015). Limited racial and ethnic diversity within academic tracks can curb students’ opportunities to form friendships with peers from racial, ethnic, and/or linguistic backgrounds beyond their own (Burris et al., 2009; Maran, 2000; Stearns, 2004; Tredoux et al., 2017).
Racial and Ethnic Segregation and Conflict

Presenting additional challenges, many other social structures beyond educational contexts reinforce racial and socioeconomic segregation and conflict between youth from different communities (US Commission on Civil Rights, 2018), limiting both the frequency and quality of intergroup contact they can experience. At the federal, state, and district levels, these structures can include how school zone and district boundaries are drawn, narrow definitions of school quality, and a lack of proactive interventions to support racial and ethnic diversity, all of which can exacerbate educational segregation and disparities between youth from different backgrounds (Wells et al., 2016).

In many countries, racial and ethnic groups remain segregated from each other in most facets of their lives. In the United States, for example, broad racial segregation in neighborhoods persists, even many decades following the civil rights era of the 1960s (Massey, 2020). Such patterns of residential segregation feed into renewed trends toward racial and ethnic segregation in US schools (Lichter et al., 2017; Tegeler & Hilton, 2017), with particularly high levels of racial isolation among youth from racial and ethnic minority backgrounds (Geiger, 2017; Orfield & Lee, 2007). These deeply entrenched and resistant forms of segregation pose significant challenges to implementing policies that would encourage contact between youth as a means of reducing prejudice and improving group relations.

Similar challenges exist in contexts where segregation between groups has been borne out of histories and legacies of violent intergroup conflict (Tropp, 2015; Wagner & Hewstone, 2012). For instance, in Belfast, Northern Ireland, youth from different communities grow up exposed to lingering religious and political tensions, as well as physical barriers such as “peace walls” that demarcate neighborhoods corresponding to distinct religious communities (see Grattan, 2020; McKeown & Cairns, 2012). Recent work suggests that living in the presence of such explicit barriers to integration may further strengthen the tendency for children to identify strongly with and reserve valued resources for members of their own religious community (O’Driscoll et al., 2018).

Patterns of group segregation and cues regarding intergroup conflict may also be reinforced by families and local communities, who have grown accustomed to viewing members of other groups through the lens of suspicion and distrust. Particularly in contexts of prolonged intergroup conflict, families may socialize children to identify strongly with their own group, and to maintain emotional distance from the outgroup, as a means to buffer them from the traumatizing effects of intergroup conflict and violence (Cummings et al., 2017; Merrilees et al., 2014). However, such socializing effects may in turn contribute to perpetuating intergroup prejudices, and in some cases, may even cultivate greater willingness to engage in conflict-perpetuating behavior (Taylor & McKeown, 2019). Moreover, even when youth in conflict settings can navigate group differences peacefully in integrated educational settings—such as in bilingual Hebrew–Arabic elementary schools in Israel, or in racially integrated dormitories in South Africa—parents and community members may still resist having children from different communities grow close to each other (Bekerman, 2009; Govender, 2007). Nonetheless, despite these challenges, studies from a range of conflict-ridden contexts indicate that when youth from different racial, ethnic, and/or religious communities engage in intergroup contact, salutary outcomes such as reduced prejudice and greater support for peacebuilding are likely to result (e.g., Al Ramiah et al., 2013; McKeown & Taylor, 2017 Paolini et al., 2014 Schroeder & Risen, 2016; Swart et al., 2011).

Naturally, the opportunity for direct intergroup contact among youth in schools and classrooms will depend on the broader context. Promoting intergroup contact among youth will clearly be less feasible in more homogenous communities or segregated areas, where opportunities for contact with members of other groups may be limited (see Christ et al., 2010; Eller et al., 2012), as well as where physical barriers (i.e., religiously segregated schools) or psychological barriers (i.e., anxiety and tensions) exist between groups. In such cases, parents and educators may seek alternative strategies such as indirect contact.

Moving Beyond Direct Contact: Exploring Indirect Contact Strategies with Youth

Addressing these challenges, there is a growing array of indirect contact strategies that have been developed and continue to be tested (see Dovidio et al., 2011 White et al., 2021), including electronic or E-contact (e.g., White & Abu-Rayya, 2012), vicarious contact (e.g., Gómez & Huici, 2008), and extended contact (e.g., Wright et al., 1997; Zhou et al., 2019), among others. Particularly during the COVID-19 pandemic—which has required social distancing and made direct contact much less common or feasible—indirect contact strategies have become particularly important for bridging social divides.

Indirect contact strategies can ease intergroup anxieties in ways that prepare youth for direct contact with other groups (Di Bernardo et al., 2017; Stathi et al., 2014), along with having great potential to improve intergroup relations in their own right (White et al., 2021). Because indirect contact strategies often provide youth with concrete examples of positive intergroup behavior that can be modeled, they offer a functional alternative to direct contact strategies by illustrating norms for cross-group relations between ingroup and outgroup members. Research indicates that youth gain valuable information about prevailing social norms through observing interactions between members of their own group and other groups (Skinner & Meltzoff, 2019; Vezzali et al., 2014; Wright et al., 1997). There are many ways in which
youth can observe how members of their own group engage with members of other groups, including watching videos depicting positive cross-group interactions (Gómez & Huici, 2008; Mares & Pan, 2013; Mazzotta et al., 2011; Vittrup & Holden, 2011), reading stories about ingroup peers’ interactions with outgroup members (Cameron & Rutland, 2006; Vezzali, Stathi, et al., 2015), or tuning in to television or radio broadcasts that depict relations between members of different groups (Joyce & Harwood, 2014; Paluck, 2009). Moreover, other research shows how simply knowing that their same-race peers and classmates have cross-race friends can improve intergroup attitudes and encourage youth to express more interest in intergroup contact (Gómez et al., 2011; Vezzali et al., 2017; Wright et al., 1997).

By reducing anxiety about cross-group interaction and encouraging supportive norms for intergroup contact, indirect contact strategies are likely to play critical roles in enhancing youth’s psychological readiness for engaging in direct intergroup contact and forging relationships with members of other groups (see Statthi et al., 2014; Turner & Cameron, 2016). In particular, Turner and Cameron (2016) posit that indirect contact strategies may boost youth’s confidence about engaging in direct contact, by providing them with opportunities to envision the course of interactions with outgroup peers and develop behavioral scripts that may be relied on in future interactions, thereby making the prospect of direct intergroup contact less intimidating.

Indirect contact strategies have revealed encouraging outcomes for intergroup relations across a wide range of national and cultural contexts. For example, indirect contact strategies have been shown to foster tolerance toward foreigners in Germany (Pettigrew et al., 2007), reduce hostility between Catholics and Protestants in Northern Ireland (Paolini et al., 2004), curb prejudice toward refugees among British students (Cameron et al., 2006), enhance positive intergroup attitudes toward ethnic minorities among Norwegian youth (De Tezanos-Pinto et al., 2010), encourage fewer negative emotional expressions between Catholic and Muslim high-school students in Australia (White et al., 2015), and improve intergroup attitudes and expectations for contact among host society and immigrant students in Italy (Vezzali et al., 2017) and Spain (Gómez et al., 2011). These indirect contact effects appear to be partially mediated by improved perceptions of inclusive in-group and outgroup norms, in addition to reduced intergroup anxiety (De Tezanos-Pinto et al., 2010; Gómez et al., 2011; Turner et al., 2008).

**Online Contact**

Though indirect contact can take many forms, we wish to highlight emerging research on online contact, which involves having youth actively engage in computer-mediated communication with members of other groups through either synchronous methods (e.g., Zoom, Skype, and chatrooms) or asynchronous methods (e.g., Email, Facebook, Instagram, and Twitter; see Bruneau et al., 2021; White et al., 2020). With technological advances and greater access to mobile devices and the Internet than ever before, increasingly, our daily interactions with members of our own and other groups have shifted to online forms of communication. Online contact strategies have gained particular prominence and significance during the COVID-19 pandemic, where physical distancing has made sustained direct contact between groups nearly impossible. Advantages of online contact include its ability to have youth engage with each other while bridging barriers related to space and time, as youth from different groups need not be in the same physical space or time zone to communicate with one another. Online contact may also help youth to overcome psychological barriers such as anxiety and avoidance, because it is not always necessary for them to approach outgroup members directly (Kauff et al., 2021; O’Donnell et al., 2021; White et al., 2020).

Many research, educational, and social justice organizations have examined how online contact can be used to promote social harmony between groups living in segregated and/or conflict settings around the world (see Amichai-Hamburger et al., 2015; Amichai-Hamburger & McKenna, 2006; Hoter et al., 2009; Mollov & Schwartz, 2010; Walther, 2009). For instance, the *Dissolving Boundaries* project, initiated in 1999, uses online videoconferencing to engage small groups of primary and high school students and their teachers in educational collaborations within Northern Ireland and the Republic of Ireland; such collaborations have been shown to foster greater cultural awareness, student tolerance of difference, and teacher recognition of similarities among Catholics and Protestants (Austin, 2006). At a more global level, the *Soliya Connect* program, first established in 2003, links students from over 222 universities in 30 countries in the Middle East, North Africa, South Asia, Europe, and North America via online videoconferencing; in this program, a group of 8–9 global peers engage in facilitated and substantive dialogue in order to build respectful relationships among youth across national, cultural, religious, and ideological divides (Soliya Connect Program, 2021).

Such online programs have laid a strong foundation for contact researchers to build upon, though scientifically rigorous, quantitative tests of their effectiveness have remained limited. Addressing some of these shortcomings are new lines of research on online intergroup contact, referred to as E-contact, which has been found to successfully promote positive relations between groups across multiple contexts (White et al., 2021). The E-contact intervention involves a synchronous, goal-directed, online text-based interaction between members of two opposing groups who never physically meet. E-contact was intentionally developed as a tightly structured intervention exemplifying optimal conditions for intergroup contact (Allport, 1954; Pettigrew, 1986). The first phase involves the exchange of personalizing,
individuating information about people from different groups and facilitating awareness of each party’s group membership; the second phase involves a cooperative, goal-directed activity where youth from different groups seek to achieve a common goal relevant to their shared interests.

To illustrate how the E-contact program has been structured (see, e.g., White & Abu-Rayya, 2012), Catholic and Muslim youth were recruited from religiously segregated schools in Australia; they were paired and connected to one another via the Internet, and student pairs used an instant text-chat program to discuss a series of topics. The nature of the student’s online contact was carefully guided by classroom teachers, researchers, and a theoretically-informed 50-page booklet ensuring that a structured interaction ensued, which ran for 45–60 minutes once a week, for a total of 9 weeks. During the first 2 weeks of this program, students exchanged personal information about their hobbies and interests and began to discuss similarities and differences between Islam and Catholicism. During weeks 3–8, students discussed how their religious communities could work together to develop a more environmentally sustainable Australia. This task presented students with a common goal relevant to their shared interests. The intergroup experiences of children and youth serve as building blocks for the formation of their attitudes and relations with members of other groups, which they may carry with them into adulthood (Abrams & Killen, 2014).

Since this initial longitudinal study, a shorter form of E-contact has been developed and found to improve intergroup relations between groups across diverse social and cultural contexts, including among Israelis and Ethiopians in Israel (Abu-Rayya, 2017); Turks and Kurds in Turkey (Bagci et al., 2021); Protestants and Catholics in Northern Ireland (White, Turner, et al., 2019a); individuals who identify as heterosexual and lesbian women and gay men ((White et al., 2019b); White, Turner, et al., 2019a); people with and without mental illness (Maunder et al., 2019); non-indigenous and Indigenous Australians (Berry & White, 2016); and people who identify as cisgender and people who identify as transgender (Boccanfuso et al., 2020).

Although E-contact and other online, computer-mediated contact strategies have shown great promise for improving intergroup attitudes and relations among youth, some limitations related to their implementation should also be noted. In part, sustained online contact requires reliable Internet access, which may be harder to achieve in socioeconomically disadvantaged areas with limited technological infrastructure (see White et al., 2021). The effects of online contact may also vary depending on the modes of online communication used (e.g., text vs. video; see Cao & Lin, 2017), the extent to which members of different groups engage with each other in relatively anonymous or individuated ways (Schumann et al., 2017), and the degree of structure and/or facilitation that occurs online to ensure that the interactions remain positive, respectful, and cooperative (White et al., 2020). Nonetheless, while more research is needed to understand how E-contact and other computer-mediated contact strategies may compare to the “gold standard” of direct, face-to-face contact (see Beelmann & Heinemann, 2014), emerging research suggests that online contact strategies are well worth pursuing to promote positive intergroup relations among youth (White et al., 2021).

Conclusion

In this article, we have reviewed an extensive body of literature indicating the many ways in which contact between youth from different groups can facilitate prejudice reduction and the development of more positive intergroup relations. The intergroup experiences of children and youth serve as building blocks for the formation of their attitudes and relations with members of other groups, which they may carry with them into adulthood (Abrams & Killen, 2014). Both direct and indirect contact strategies can be used to reduce intergroup prejudice and prepare youth—emotionally, psychologically, and behaviorally—to engage effectively with members of diverse groups in their societies (Tropp & Saxena, 2018). Yet, it is crucial to recognize both prospects and challenges associated with employing contact strategies to reduce prejudice and improve intergroup relations among youth, given their varied stages of development, the distinct social and educational contexts in which they grow and learn, and the many forms and aspects of structural inequality and conflict that persist and shape relations between groups in our world. As youth around the globe inherit and face these challenges, we must continually consider how direct and indirect contact with other groups can enhance their capacity to embrace difference and build ever-more inclusive societies.

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ORCID iDs

Linda R. Tropp  https://orcid.org/0000-0003-0203-7846
Fiona White  https://orcid.org/0000-0002-3040-7130
Christina L. Rucinski  https://orcid.org/0000-0002-0193-6308
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