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Intergroup Bias in Children's Preference for In- Versus Out-Group Informants

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The present research explored whether children manifest intergroup biases in their choice of informants from in- versus out-groups. We conducted two studies among Israeli Jewish and Arab children aged 5- and 8-year-old (N = 260; 51% girls, 49% boys). Study 1 served as a baseline with nonsocial targets of information, whereas Study 2 had people as targets. We examined biases in three respects: assessment of informants' expertise, preference for informants, and acceptance of informants' advice. Results revealed intergroup biases in children's choices of informants in all three respects, particularly when learning about people, and among younger and minority group children. The findings highlight how epistemic and social identity cues affect children's informant's choice.

Public Significance Statement
Children rely on various cues when selecting informants for knowledge about the world. This research reveals that 5- and 8-year-old Israeli children manifest intergroup biases when choosing informants, particularly when the information is about people, and particularly when the participants are younger and minority group (Arab) children. The findings emphasize how social identity (group membership) and epistemic cues (expertise) shape children's learning, suggesting important insights for effectively transmitting information about different groups to children.

Keywords: preference for informants, intergroup bias, social versus nonsocial information

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Children are greatly reliant on others for their knowledge of the world, and indeed are exposed to information from a variety of sources (see Harris et al., 2018, for a review). In order to navigate this network of informants, children have to decide which ones to trust. In some cases, when the information to be acquired is "objective" and value-free (e.g., what is the shortest route to get somewhere), then relying on indicators of expertise and prior accuracy is an adequate strategy. However, when the information to be acquired may relate to children's attitudes and values (e.g., who should I play with), children might rely on different types of cues. In line with confirmation bias, which refers to the tendency of people to expose themselves more to information sources that share their beliefs than to those that do not (for a review see, Nickerson, 1998), children may be especially attuned to informants who reflect their own social identities. In particular, resonating with the concept of "echo chambers," children may prefer informants aligned with their existing values and attitudes. The present studies investigate how children balance between these different kinds of cues in deciding which informants to follow.

From early on in development, children are quite adept at deciding whom to trust for information, adopting two broad strategies for selecting informants (for a meta-analysis, see Tong et al., 2020). As hinted above, the first strategy is to rely on epistemic cues (e.g., previous accuracy, expertise), which pertain to informants' knowledge states. In fact, from a young age children rely on a variety of cues as to the epistemic reliability of informants. Children monitor

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informants' past accuracy, preferring to learn from those with reliable track records (Bascandziev & Harris, 2016; Birch et al., 2008; Koenig & Harris, 2005). Interestingly, children are selective, and appreciate that accuracy in one particular domain (e.g., object labels) does not necessarily generalize to accuracy in other domains (e.g., object functions; Brosseau-Liard & Birch, 2010). In fact, children are sensitive to differences in people's broad fields of knowledge, preferring to approach informants based on their distinct expertise (Harris et al., 2018; Koenig & Jaswal, 2011; Lutz & Keil, 2002; Poulin-Dubois & Brosseau-Liard, 2016).

The second strategy children use to select informants is to rely on informants' social identity characteristics (e.g., familiarity, group membership), which relate to the possible alignment of the information with the child's own beliefs and values. Indeed, in general, children prefer to ask for information from people they are familiar with (Chen et al., 2011). For example, children choose to accept information about novel object labels from their mother over strangers (Corriveau et al., 2009), their teachers over unfamiliar teachers (Corriveau & Harris, 2009), and individuals of their same, rather than different, gender (Shutts et al., 2010; Taylor, 2013), language community (Corriveau et al., 2013; Kinzler et al., 2011), culture (Chen et al., 2011; Harris & Corriveau, 2011), race (Chen et al., 2013), and even minimal group (Elashi & Mills, 2014; Hetherington et al., 2014). Finally, children endorse differently misinformation from in- and out-group informants. For instance, 4-year-old were more credulous of the false testimony of a race-and-accent in-group informant than an out-group one (McDonald & Ma, 2016), and 4- and 5-year-old were more likely to accept counter-intuitive claims about objects made by minimal in-group than out-group members (Li & Koenig, 2022).

A question these findings raise is what happens when the cues pertaining to these two broad strategies conflict—namely, when the epistemic cues privilege informant A over B, but the social identity cues privilege B over A. In a study by Marble and Boseovski (2019), 6- to 9-year-old heard about a foreign cultural practice and were asked from whom they would like to learn more about the practice: an informant from that foreign country (i.e., an expert though out-group informant) or from an American (i.e., a naïve yet in-group informant). Overall, children endorsed the foreign over the American informant, justifying their selection by referring to the foreign informant's cultural expertise. Several studies have also pitted accuracy against social identity cues. For instance, in Corriveau and Harris (2009), when the familiar teacher had been less accurate than the unfamiliar teacher, then 5-year-olds' trust in the familiar teacher was undermined, but 3- and 4-year-olds' less so. Similarly, when prior accuracy was pitted against the sex of the informant, 4- to 7-year-old manifested a preference for prior accuracy (Taylor, 2013). Studies using minimal groups revealed some developmental changes, with children 4-year and younger continuing to trust an inaccurate in-group object labeler over an accurate out-group labeler, and 6- and 7-year-old showing a decrease in their trust of the inaccurate in-group labeler (Elashi & Mills, 2014; MacDonald et al., 2013). In sum, there are developmentally nuanced interactions between the weights of the different characteristics of informants, in children's decisions about whom to trust regarding information about the world.

An especially intriguing domain in which to further explore the possible tension between epistemic and identity cues is the social domain. As reviewed thus far, although children develop sophisticated strategies for assessing which informants are better sources for accurate and reliable information (Harris, 2007), they may also use biases in their selection process of informants (e.g., Jaffer & Ma, 2015). Arguably, these biases might be especially powerful in the social domain—for example, when the information children have to select regards in- and out-group individuals—as these informational biases interact with children's all-so prevalent intergroup attitudinal biases. In fact, children have biased preferences regarding the amount, scope, and content of information they are interested in obtaining about in- and out-group members (Nasie & Diesendruck, 2020). Moreover, children process information about the in-group favorably, and differently, compared with how they process information about out-groups. For instance, after being read a story, children remembered more positive behaviors of an in-group member and negative behaviors of an out-group member (Corenblum, 2003; Dunham et al., 2011). Complementarily, when given the choice to seek out information about others, children chose to hear a story that contained positive information about their in-group and negative information about the out-group (Over et al., 2018). Interestingly, 4- to 6-year-old were torn as whether to choose to hear a (minimal) in-group favoring story from an unreliable source or a (minimal) out-group favoring story from a reliable source (Chalik et al., 2022).

The present research aimed to explore biases in information processing from a different perspective; namely, by examining children's preferences for potential *informants* about social groups. Two recent studies investigated situations in which in- and out-group informants provided information regarding in- and out-group members. Farooq et al. (2022) examined whether children (8- to 11-year-old) and adolescents (12- to 16-year-old) respond differently to a misinformer spreading false claims on WhatsApp about a peer breaking rules, depending on the group membership of the misinformer and their target. Participants were more likely to evaluate an in-group compared with an out-group misinformer positively and more likely to accuse an out-group misinformer of dishonesty. Adolescents attributed more positive intentions to the in-group misinformer compared with children, with children more likely to believe an out-group misinformer was deliberately misinforming. In Aldan and Soley (2019), 6- and 7-year-old endorsed in-group informants' testimony about novel individuals' traits (being nice vs. mean) selectively on the basis of the target's and the informants' group membership. When targets were novel in-group individuals, children tended to endorse the positive testimony about their traits regardless of the informants' group membership. In contrast, when targets were novel out-group individuals, children's endorsement varied depending on the informants' group membership: Children tended to endorse the testimony of in-group informants, both when it was positive as well as when it was negative. The above findings further highlight the importance of the valence of the information in swaying children's decisions about whom to trust. On the one hand, as seen in Aldan and Soley, children have a general positivity bias regarding people's traits (see also Boseovski, 2012; Boseovski & Thurman, 2014). On the other, children also have a preference for information consistent with their intergroup attitudes (Chalik et al., 2022; Over et al., 2018).

The Present Research

The present research examined whether Jewish and Arab Israeli children manifest intergroup biases in their choice of in- versus out-group informants about people from the children's ethnic in- and

out-groups. We conducted two studies: Study 1 was a baseline study that assessed potential biases regarding nonsocial information, namely, places. Study 2 assessed potential biases regarding social targets, namely, people. By examining both nonsocial and social targets, we aimed to capture potential differences in children's reasoning processes. Social targets are more likely to engage intergroup attitudes, emotional biases, and value-laden considerations, whereas nonsocial targets may be evaluated primarily through instrumental or knowledge-based reasoning, with relatively lower emotional involvement.

Differently from previous studies (e.g., Aldan & Soley, 2019; Farooq et al., 2022), in the present studies, we assessed potential intergroup biases in three respects: in children's assessment of (a) informants' expertise (often referred to as "judgment questions" in the testimony literature, e.g., Koenig & Jaswal, 2011), (b) preference from whom to receive information (also called "ask questions"), and (c) acceptance of informants' valenced advice as to how to behave toward another individual ("endorse questions"). By examining these three dimensions, we aimed to provide a comprehensive analysis of how children weigh epistemic versus social identity cues when evaluating and learning from informants. Expertise assessment serves as a direct measure of the epistemic cue, capturing the extent to which children attribute credibility to different informants based on their presumed knowledge. Given that expertise is primarily an epistemic cue, we expected it to be less influenced by intergroup biases compared with the other two dimensions. Preference for informants reflects a more socially driven dimension of trust, as it directly assesses children's attitudes toward and liking of different informants. Therefore, this dimension served as a more direct indicator of potential intergroup bias. Acceptance of advice is the practical consequence of selective trust—whether children act on the information provided by different informants. This respect also allowed examining how the conflict between social and epistemic cues plays out when the information being provided about individuals is valenced.

The present research further differed from previous related work in several key ways, all potentially inducing a different pattern of responses by children. First, the social context in which we examined children's informational biases is one of intense conflict between the targeted social groups (compared, for instance, with the groups, "Turkish" vs. "French," targeted in Aldan & Soley, 2019). Namely, participants were secular Jews and Muslim Arabs living in Israel and the targeted in- and out-groups were "Jews" and "Arabs." Israeli Jewish and Arab children associate the categories "Jews" and "Arabs" with conflict already at a young age (e.g., Bar-Tal et al., 2017; Nasie et al., 2016), as they learn to categorize and essentialize the in-group and the adversary out-group (Deeb et al., 2011), and develop an emotional repertoire connected to the conflict including fear, insecurity, and hatred (Bar-Tal & Teichman, 2005; Brenick et al., 2010). It was thus intriguing whether in such a conflictual context intergroup biases would be especially influential in children's choices of informants.

Second, and differently from all previous studies, we tested children representative of both the majority (secular Jews) and minority (Muslim Arab) populations. As is the case in many countries, it is typically majorities that dominate information sources and national discourse and thus there may be status differences in children's willingness to accept testimony from majority versus minority members. In addition, studies indicate differences in the strength of intergroup biases among majority and minority members. Some studies found stronger biases among majority than minority members, both in the United States regarding race (Baron & Banaji, 2009; Dunham et al., 2014), as well as in Israel regarding ethnicity (Brenick et al., 2010). These differences may stem from distinct motivational dynamics influenced by children's awareness of social status and group hierarchies. Even from a young age, children are attuned to societal power structures (Dunham et al., 2007; Shutts et al., 2011), and this awareness shapes how majority and minority group members perceive the in- and the out-group. Specifically, majority group members are often motivated to maintain positive distinctiveness by emphasizing the superiority of their in-group relative to out-groups, which can lead to stronger expressions of in-group bias. In contrast, minority group members may be more motivated by a need to affirm and protect their group's identity, especially in the face of lower status or marginalization. This can result in either heightened in-group bias or, in some contexts, out-group favoritism, depending on how individuals navigate and secure their social identity (Leonardelli & Brewer, 2001). However, cultural context may shape these underlying motivations, leading to different patterns of intergroup bias across group statuses. For example, a recent study found that although both Israeli Jewish (majority) and Arab (minority) children exhibited similar levels of in-group favoritism, Arab minority children expressed out-group dislike more pronouncedly than Jewish majority children (Nassir & Diesendruck, 2024). Thus, it was interesting to explore how majority and minority children manifest informational biases.

A third potential contribution of the present studies regarded developmental processes. Participants in the present studies were from two age groups, kindergartners (5- to 6-year-old) and 2nd graders (7- to 8-year-old), ages that mark important developmental transitions with respect to intergroup biases (Bigler & Liben, 2007; Buttelmann & Böhm, 2014; Dunham et al., 2011). Studies indicate that the malleability of children's intergroup bias increases across these ages (Gonzalez et al., 2017; Hayes et al., 2003; Wilks et al., 2019). In particular, as children's social identity solidifies between ages 5 and 8 years, both ethnic prejudice (Nesdale, 2004) and out-group derogation (e.g., Buttelmann & Böhm, 2014) increase. In addition, these age groups mark developmental transitions with respect to sensitivity to sources of information (see Harris & Koenig, 2006; Mills, 2013, for reviews). As children move into middle childhood, there is a notable shift in their cognitive capabilities, including improved perspective-taking and a growing ability to consider the intentions and credibility of information sources (Mills, 2013). Previous studies pitting epistemic (i.e., accuracy or expertise) and group biased (i.e., partisan stories) cues found that 5-year-old were undecisive in their choices of which cue to follow (Chalik et al., 2022). It was thus interesting to examine whether older children in the present scenario would exhibit more definitive preferences.

Two methodological aspects of the present studies also allowed for a finer-tuned diagnosis of children's informational biases. First, as noted earlier, Study 1 consisted of an examination of children's preferences for in- versus out-group informants regarding nonsocial information (i.e., information about places). As such, it provided a "pure" assessment of children's intergroup informational biases, as these were topics about which the two informants were equally knowledgeable or naïve. In other words, epistemic cues (e.g., expertise) did not distinguish between the informants, and only

group membership did. The second methodological feature was that in order to assess whether sheer out-group membership suffices for children to manifest any bias (Dunham, 2018), in addition to presenting "conflict" out-groups ("Jews" and "Arabs") as targets and informants, the studies also included a "neutral" out-group ("Scots"). Previous studies (Nasie et al., 2022) indicated that children from the populations and ages sampled here are quite unfamiliar with this group, and do not hold any stereotypes related to it.

In each trial of the main experiment (Study 2), the experimenter showed participants a picture of a "target" character, who varied in his/her group membership: some belonged to the participant's group (Jews/Arabs, depending on the participant's ethnicity), some to the "conflict" out-group (Arabs/Jews, respectively), and others to the "neutral" out-group (Scots). In different trials, the experimenter presented to participants two possible "informants" who could provide information about the target character. The group membership of the informants also varied: either an informant from the same group as the target or from another group. In each trial, children were asked three questions: (a) who they think knows the most about the target; (b) which of the two informants they want to consult to receive information about the target; and (c) whose advice (positive or negative) as to how to relate to the target, they accept.

This design allowed us to assess alternative hypotheses regarding the interaction between epistemic and identity cues in children's selection of informants. In particular, if children are driven primarily by epistemic cues, then they should prefer expert informants; namely, they should choose informants from the same group as the target. This should be exclusively manifest in Study 2, as in Study 1 the target was a place, and thus there was no a priori expertise advantage for any of the informants. In turn, if children's selections are driven primarily by social identity cues, then they might prefer in-group informants, no matter who—or what—the target is. Trials in Study 2 that included a neutral out-group as target or informant were particularly interesting in these regards. For instance, if group biases dictate children's choices, then a neutral out-group informant may be preferred over a conflict out-group informant. The inclusion of children from different ages, and from majority and minority populations, further allowed assessing the effects of these factors on the interaction between epistemic and social identity cues.

Study 1: Nonsocial Targets

Method

Participants

Participants were 131 Israeli children, of whom 64 were Jews from two age groups—32 kindergarteners (50% girls, 50% boys, $M_{age} = 5.81$, $SD = 0.69$) and 32 2nd graders (38% girls, 62% boys, $M_{age} = 7.81$, $SD = 0.42$); and 67 were Arabs from two age groups—34 kindergartners (44% girls, 56% boys, $M_{age} = 5.90$, $SD = 0.30$) and 33 2nd graders (45% girls, 55% boys, $M_{age} = 8.01$, $SD = 0.22$; for analyses of the demographic information, see Supplemental Material). Aldan and Soley's (2019) study—the closest in design to the present one—reported moderate to large effect sizes for the within-subjects effects of informants' group membership, and the interaction between informants' and targets' group membership (the latter relevant for Study 2). For sample size estimation, Cohen's f effect size was used as a proxy due to the lack of standard conventions for generalized linear mixed model (GLMM)-based power calculations. While Cohen's f is traditionally used in analysis of variance, it can approximate variance-explained measures that align with mixed models. Additionally, power analyses for GLMMs are complex due to random effects and nonnormal distributions. We followed previous studies that used f to approximate effect sizes for binary outcomes (Lorah, 2018; Selya et al., 2012). Given an estimated moderate effect size of $f = .25$, setting $\alpha = .05$, and $1 - \beta = .90$, the recommended sample size per cell was $N = 30$. For the sake of full-balancing presentation orders, we tested in both studies at least 32 children per cell, continuing if more children had permission to be tested by the date testing started.

The Jewish participants were from middle-class and secular families, recruited from state kindergartens and schools in Israeli cities where Jews are the absolute majority. The Arab participants were from low- to middle-class traditional and religious Muslim families, recruited from state kindergartens and schools in Israeli cities inhabited exclusively by Arab Muslims. Only children with signed parental consent participated in the study. The research was approved by the chief scientist of the Israeli Ministry of Education, the schools' principals, and the institution's Ethical Committee. The data were collected between May 2022 and January 2023, by two Jewish and two Arab female experimenters.

Design

The between-subjects variables were participants' ethnicity (Jews or Arabs) and age group (5- or 8-year-old); the within-subjects variable was trial type, representing the possible informants children could ask (Arab/Jew, Arab/Scot, Jew/Scot).

Materials

The study included three trials depicting three different places (park, mall, and zoo) and three different pairs of informants (Arab/Jew, Arab/Scot, Jew/Scot). The informants were represented by six photos of boys for male informants and six of girls for female informants. These photos were assigned to represent the different groups and they did not include any stereotypic characteristics associated with any group. This allowed counterbalancing the assignment of the pictures to the different groups (i.e., the same picture was described as a Jew for part of the participants, as an Arab for others, and as a Scot for the rest), across participants. Also counterbalanced was the assignment of trial type to target place.

The experimental protocols were built in Hebrew and Arabic, by native Hebrew and Arabic speakers. The protocols were conveyed through Qualtrics, so experimenters presented all materials via laptops and filled out children's answers directly onto the Qualtrics form.

Procedure

The study was conducted by Hebrew or Arabic native speakers, according to the Jewish and Arab participants' native language, respectively. It was conducted in the children's educational institutions, during regular school hours. The experimenter sat individually with each participant and presented the task as a game. She told the participant that she would show him/her pictures, tell some things about the people in the pictures, and then ask children some questions about the pictures. In each of three trials, the experimenter

showed participants a picture of a target place (e.g., a park). Then, she showed two pictures of informants (same sex as the participant's), and told children: for example, in the Arab/Jew trial, "These are two boys who can tell you information about the park. This is Salem, he is an Arab boy like you. This is Ron, he is a Jewish boy."

Participants were then asked who they think knows more about the place: the in-group or the out-group informant (e.g., "Who do you think knows more about the park and its attractions, Salem, the Arab boy, or Ron, the Jewish boy?"). Participants' answer constituted the first dependent measure: *informant expertise* (similar to "judgment questions" in previous work, e.g., Koenig & Jaswal, 2011). These values varied according to the trial type. Next, we assessed participants' *informant preference* (similar to an "ask question" in previous work). Specifically, the experimenter asked participants who they would want to provide them with information about the place: the in-group or the out-group informant (e.g., "Now please tell me, who do you want to tell you about the park, Salem, the Arab boy, or Ron, the Jewish boy?"). Last, the experimenter asked participants for their acceptance of *informants*' *advice* (akin to "endorse questions") in which one informant advised children to take one direction of action and the other a slightly different one (e.g., "Here is a slide, both boys tell you that you should go on the slide. Salem, the Arab boy, says you should play on the slide in the afternoon, and Ron, the Jewish boy, says you should play on the slide but not in the afternoon. What would you want to do, go play on the slide in the afternoon like Salem says, or go play on the slide but not in the afternoon like Ron says?"). In order to keep the design of Study 1's trials identical to those in Study 2, we coded these advices as "positive" or "negative" according to whether the informant told children to do or not do a particular action in a given way. For each trial type, there were four advice questions, such that each informant offered two positive recommendations and two negative ones altogether. The valence of the negative versus positive advice was counterbalanced within and between subjects (for more details, see Supplemental Material). As will become clear, this manipulation of valence was critical in Study 2, but meaningless here.

Once done with one trial type, the experimenter moved to the next one, about a different place (e.g., a shopping-mall). In all three trials, the questions were the same, yet with different pictures, names, and group membership of the informants. The order of presentation of the trial types was counterbalanced across participants, such that for a third of participants, the order was Jew/Scot, Arab/Scot, Arab/Jew; another third it was Arab/Scot, Arab/Jew, Jew/Scot; and last, Arab/Jew, Jew/Scot, and Arab/Scot. Also counterbalanced across participants was the order in which the informants were introduced in each trial.

Once the experimenter finished all the trials, she debriefed the participant, explaining what they had done during the experiment in a simplified way. Specifically, she explained about social groups, and the importance of treating the different individuals belonging to different social groups equally and respectfully.

Transparency and Openness

We report how we determined sample size and all measures in the study. All data and analysis code are available at Nasie et al. (2025). We are unable to share the research materials, that is, photos of children and places, due to the absence of explicit permissions to publish them on public platforms. Data were analyzed using R Version 4.3.1 and SPSS Version 28.0.1.0(142). The study's design and its analysis were not preregistered.

Results

Dependent Variable

In the analyses, the dependent variable was the frequency of choice of a particular informant. Instead of coding the candidate informants in terms of their category label (i.e., "Jew," "Arab," "Scot"), we coded them in terms of their group status, namely, "Ingroup" (IG), "Conflict Outgroup" (Conflict OG), and "Neutral Outgroup" (Neutral OG). This allowed a direct comparison between the choices of Jewish and Arab participants, for example, how often did either choose an IG informant (i.e., a Jewish informant for Jewish participants, compared with an Arab informant for Arab participants). Given this coding, in trials involving an IG informant (i.e., IG/Conflict OG and IG/Neutral OG) we counted choices of the IG informant, and in the Neutral OG/Conflict OG trial, we counted choices of the Neutral OG informant.

Expertise and Preference Measures

In our first analysis, we assessed whether the independent factors affected children's choices of informants. To that end, we ran a generalized linear mixed model analysis in R Version 4.3.1, for each trial, assessing the fixed effects of participants' ethnicity (Jews or Arabs), age group (5- or 8-year-old), and question type (expertise or preference). We included Participant as a random effect. *P* values were corrected for multiple tests using the Benjamini–Hochberg (BH) method. The BH correction was applied, in both studies, using the standard procedure in R. Specifically, we used the function *p*.adjust($p = p_$original, method = "BH," $n = n$), where *p*_original represents the set of uncorrected *p* values, and *n* is the total number of tests. This function adjusts the *p* values by controlling the false discovery rate, ensuring that the expected proportion of false discoveries among significant results remains below the specified threshold. The corrected *p* values were then compared against an false discovery rate threshold of 0.05 to determine statistical significance. The GLMM revealed no significant effect of any of the fixed factors, in any of the trial types ($ps > .06$; for more details, see Supplemental Material).

We then conducted one-sample *t* tests comparing the percentage of times in which children chose a particular informant to a 50/50 distribution of choices between the two potential informants in each trial. Given the null-effects of question type, ethnicity, and age in the GLMM, these tests were conducted across these factors. The analyses revealed that children did not prefer the neutral out-group informant significantly above chance when the options were a neutral out-group and a conflict out-group informant ($M = 56.10$, $SD = 39.72$), $t(130) = 1.76$, $p = .081$. In contrast, in the two trials that involved an in-group informant, children preferred that informant, both when the alternative was a conflict out-group ($M = 75.19$, $SD = 32.44$), $t(130) = 8.88$, $p < .001$, or a neutral out-group informant ($M = 65.26$, $SD = 37.66$), $t(130) = 4.63$, $p < .001$. Moreover, an analysis of variance directly comparing these two trials revealed a significant effect of trial type, $F(1, 130) = 6.52$, $p = .012$, $\eta_p^2 = .048$: children chose the in-group informant more when the

alternative was a Conflict OG informant than when the alternative was a Neutral OG informant. Figure 1 presents these data for each trial type, indicating whether the distribution differed from chance.

Advice Measure

On this measure too, we first ran a GLMM on each trial type, with the same fixed factors and dependent variable as defined above. For the sake of consistency with Study 2, we added the factor valence, which referred to whether the advice was positive or negative (coded as whether the advice of the first informant was negative). The only meaningful significant effect in these analyses was that of ethnicity, in the IG versus Conflict OG trial ($\beta = -0.33$, $z = -2.48$, $p = .01$, $OR = 0.71$). Arab participants were 29% less likely than Jewish participants to choose the conflict out-group informant (see Supplemental Material for all analyses).

Next, we used one-sample *t* tests to assess whether the distribution of children's choices of advisors was different from that expected by chance (i.e., against 50%) in each trial type. Given the effect of ethnicity revealed in the GLMM in IG versus Conflict OG trial, we conducted these analyses in this trial separately for each ethnicity. We found that both Jewish ($M = 62.89$, $SD = 27.45$), $t(63) = 3.75$, $p < .001$; and Arab children ($M = 69.77$, $SD = 27.70$), $t(66) = 5.84$, $p < .001$; preferred the advice of the in-group informant significantly above chance. Similarly, in the IG versus Neutral OG trial, across participants' ethnicities, children preferred the advice of the in-group informant significantly above chance ($M = 55.15$, $SD = 28.03$), $t(130) = 2.10$, $p = .037$. Finally, in the Neutral OG versus Conflict OG trial, across ethnicities, children's preference for either informant did not differ from chance (M for neutral informant = 46.56, $SD = 27.86$), $t(130) = -1.41$, $p = .161$. Figure 2 presents these data for each trial type, indicating whether the distribution differed from chance.

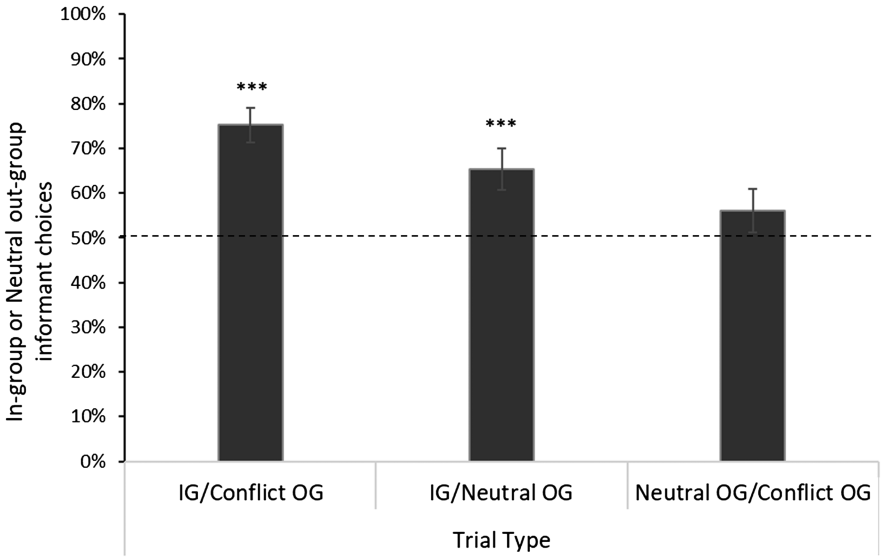
Discussion

Study 1 revealed intergroup biases in Jewish and Arab Israeli children's choices of informants when needing information regarding places. Both kindergarteners and 2nd graders chose the ethnic in-group over the out-group informants, both as an expert and preferred source, and they were also more likely to accept advice from an in-group over an out-group informant on how to act. This is consistent with children's general intergroup bias in preferring to receive information from members of their group (Chen et al., 2013; Corriveau et al., 2013; Elashi & Mills, 2014; Shutts et al., 2010; Taylor, 2013). Interestingly, this in-group favoritism was somewhat stronger when the paired informant belonged to a conflict than to a neutral out-group, plausibly reflecting differences in the strength of attitudinal biases toward these out-groups.

Having documented intergroup biases in children's preferences regarding nonsocial information, Study 2 assessed whether such biases exist when children learn about people with particular group memberships. As described in the Introduction, in such a case, the tension between social identity and epistemic cues is especially salient. Specifically, following identity cues, an informant from one's *own* in-group may be favored because he/she likely aligns with one's intergroup attitudes. In turn, following epistemic cues, an informant from the *target's* in-group may be favored because he/she

Figure 1

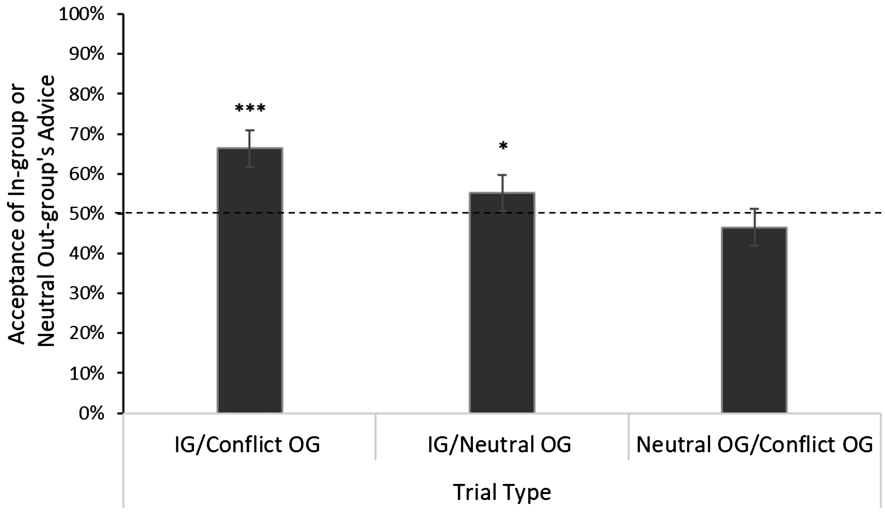
Percentage of Expert and Preference Choices Among Jewish and Arab Children, Across Ethnicities and Ages



Note. The dashed line marks chance level. Error bars represent standard errors. The dependent variable is the percentage of selections of IG in IG/Conflict OG and in IG/Neutral OG trials, or the percentage of selections of Neutral OG in Neutral OG/Conflict OG trials, in expert and preference questions. IG = Ingroup; Conflict OG = conflict outgroup; Neutral OG = neutral outgroup.
*** $p < .001$.

Figure 2

Percentage of Advice Choice Among Jewish and Arab Children, Across Ethnicities, and Ages



Note. The *y* axis reflects the percentage of times the IG or the Neutral informants' advice was selected in the respective trial types. The dashed line marks chance level. Error bars represent standard errors. IG = Ingroup; Conflict OG = conflict outgroup; Neutral OG = neutral outgroup.
$^{*}p < .05$. $^{***}p < .001$.

likely is more knowledgeable about the target. Thus, when one's group differs from the target's, each type of cue endorses a different favorite informant. Study 2 assessed how children solve this conundrum.

Study 2: Social Targets

Method

Participants

Participants were 129 Israeli children, of whom 64 were Jews from two age groups—32 kindergarteners (62% girls, 38% boys, $M_{age} = 5.76$, $SD = 0.38$) and 32 2nd graders (62% girls, 38% boys, $M_{age} = 7.98$, $SD = 0.32$); and 65 were Arabs from two age groups—32 kindergartners (56% girls, 44% boys, $M_{age} = 5.90$, $SD = 0.31$) and 33 2nd graders (51% girls, 49% boys, $M_{age} = 7.91$, $SD = 0.25$; for more details, see Supplemental Material). All the participants were sampled from similar backgrounds and in the same manner as in Study 1. None of the participants in Study 2 participated in Study 1. The data were collected between March and December 2022.

Design

As in Study 1, the between-subjects variables were participants' ethnicity (Jews or Arabs) and age group (5- or 8-year-old). The within-subjects variables were group membership of the target (in-group: Jew/Arab, respectively; "conflict" out-group: Arab/Jew, respectively; and "neutral" out-group: Scot), and trial type, representing the possible informants children could ask (Arab/Jew, Arab/Scot, Jew/Scot). The study included pairing of targets and informants into five trial combinations, such that always one of the informants was of the same group as the target, and the other informant from a different group. The trials were a Jew as target with an Arab and a Jewish informant, a Jew as target with a Jewish and a Scottish informant, an Arab as target with an Arab and a Jewish informant, an Arab as target with an Arab and a Scottish informant, and finally a Scot as target with a Scottish informant and either a Jewish (for Jewish participants) or an Arab (for Arab participants) informant. As in Study 1, in order to directly compare the intergroup biases of Jewish and Arab participants, we coded both targets and informants in terms of their group membership; that is, as IG, Conflict OG, and Neutral OG. Given this definition, all participants underwent the "same" five trials: two IG target trials, one with IG/Conflict OG informants and the other with IG/Neutral OG informants; two Conflict OG target trials, one with IG/Conflict OG informants and the other with Neutral OG/Conflict OG informants; and one with a Neutral OG target with IG/Neutral OG informants. The order of presentation of the targets was counterbalanced, such that half of the participants saw IG, Conflict OG, Neutral OG, IG, Conflict OG, and the other half the reverse order. Also counterbalanced, on the two trials with an IG target, half of the participants got as informants IG/Conflict OG on the first trial and IG/Neutral OG on the second, and half the reverse. Similarly, on the two trials with a Conflict OG target, half of the participants got as informants IG/Conflict OG on the first trial and Neutral OG/Conflict OG on the second, and half the reverse. Finally, also counterbalanced was the order of presentation of the informants.

Materials

We used five photographs depicting the target children and 10 photographs of the informants, either boys or girls, matching the participant's sex. The photos were assigned in a balanced

fashion to all three groups (for more details, see Supplemental Material).

Procedure

The platform and languages used were the same as those used in Study 1. The experimenter told participants that she would show pictures of children (rather than places as was done in Study 1) about whom the participants might want information, tell them about potential informants, and then ask questions about them.

The study started with the experimenter describing to participants a picture of a same-sex target child, for example, for an Arab male participant: "Look, here is Ahmad, he is an Arab boy like you." The experimenter then showed two more pictures of children (the informants) who differed in their group membership, and said: "Here are two more boys. Each one of them can tell you something about Ahmad. This is Rafik, an Arab boy; and this is Alon, a Jewish boy." The experimenter then assessed the three dependent measures in a fixed order: The first dependent measure was *informant expertise.* The experimenter asked participants who they think knows more about the target's character: the target group's informant or the other informant ("Who do you think knows more about Ahmad? Rafik, the Arab boy, or Alon, the Jewish boy?"). For this, and all other dependent variables, participants' choices were coded in the following manner (according to the trial type and the participant's ethnicity): 1 = informant from the same group as the target and 2 = informant from the different group than the target.

Next, we assessed participants' *informant preference.* The experimenter asked the participant whom they prefer to tell them information about the target's character: the informant from the target's group or the informant from the other group ("Who do you want to tell you information about Ahmad? Rafik, the Arab boy, or Alon the Jewish boy?").

Last, the experimenter asked participants for their *acceptance of informant advice*. The experimenter provided four different sets of advice by the informants regarding how to behave toward the target. Namely, she said "Let's imagine that you met Ahmad. I will tell you the advice that Rafik and Alon would want to tell you about Ahmad. Rafik the Arab boy says that you should play with Ahmad; Alon the Jewish boy says you shouldn't play with Ahmad. Would you play with Ahmad like Rafik tells you, or wouldn't you play with Ahmad as Alon tells you?" The valence of the information and the advice offered by the informants were counterbalanced within- and between-subjects in each trial type, so that in two questions in each trial type the informant from the target's group provided positive advice (e.g., "you should play with"), while the other informant provided negative advice ("you shouldn't play with"). In the other two questions the informant from the target's group provided negative advice, while the other informant provided positive advice. The other types of advice given were to "invite to the park," "sit next to," and "visit at their home."

Once done with one trial type, the experimenter moved to the next one, concluding with a debriefing as done in Study 1. In all trial types, the questions were the same, yet with different pictures, names, and group membership of targets and informants.

Results

For the sake of uniformity across trials, the dependent variable was the frequency of choice of the informant *different* from the target (e.g., in trials where the target was an in-group, the dependent variable was the frequency of choices of one of the out-group informants, according to the trial type). Our analytic strategy involved two steps. In the first step, we assessed whether the independent factors affected children's choices of informants. To that end, we ran generalized linear mixed model analysis in R Version 4.3.1, for each target type, assessing the fixed effects of ethnicity, age group, informants' identities (only when the target was in-group or conflict out-group), and question type (expertise or preference) or valence (in the advice measure). As we will detail below, the latter two factors varied across measures. We included participant as a random effect. Some interactions were entered into the models, while others were examined by division into cases. For example, an interaction between ethnicity and trial type was not entered as is into the model, since there is a dependency between the ethnicity of the target and the trial type. *P* values were corrected for multiple tests using the BH method. In the second step of the analyses, we conducted one-sample *t* tests, to determine whether children's choices of informants differed from chance responding.

Expertise and Preference Measures

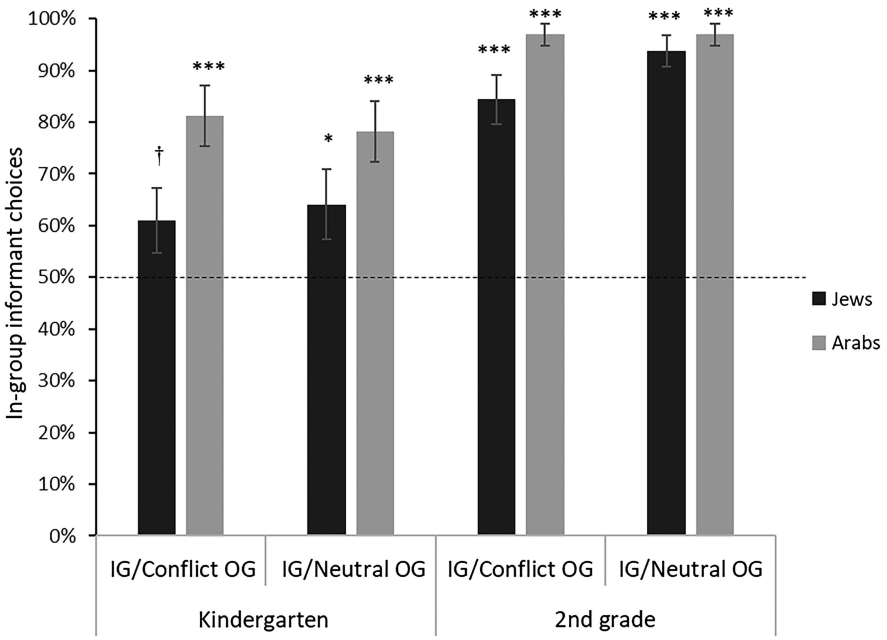
In-Group Target. The analysis revealed significant effects of participants' ethnicity ($\beta = -1.15$, $z = -3.39$, $p < .001$), age ($\beta = -2.01$, $z = -5.42$, $p < .001$), and question type ($\beta = 1.12$, $z = 3.96$, $p < .001$) but no significant effect of informants' identities ($\beta = 0.21$, $z = 0.79$, $p = .42$). Thus, when the target was an in-group member, children's choice of informant was the same, irrespectively as to whether the alternative informant was a conflict or a neutral out-group. Specifying the effect of ethnicity, Arab participants were 69% less likely than Jewish participants to choose the out-group informant ($OR = 0.31$). As for the effect of age, 2nd graders were 87% less likely than kindergartners to choose the out-group informant ($OR = 0.13$). These patterns can be seen in Figure 3. Finally, on the effect of question type, participants were 206% more likely to choose an informant different from the target in preference questions than in expertise questions ($OR = 3.06$).

Next, to assess children's absolute preference for the in-group informant, we conducted one-sample *t* tests comparing the percentage of choices of the in-group informant to that expected by chance (i.e., against 50%) in each trial type (i.e., IG/Conflict OG trial and IG/Neutral OG trial). Given the effects of children's ethnic group and age, we broke down these analyses by these factors (see Supplemental Material for further analyses broken down by question type). As can be seen in Figure 3, when choosing an informant for information about an in-group target in expertise and preference questions, Jewish and Arab children from both age groups preferred an in-group informant, both when the alternative was a conflict out-group informant (here Jewish kindergartners exhibited a trend) or a neutral out-group informant.

Conflict Out-Group Target. The analysis revealed significant effects of ethnicity ($\beta = 0.74$, $z = 2.38$, $p = .017$), age ($\beta = -1.84$, $z = -5.57$, $p < .001$), and question type ($\beta = 0.75$, $z = 3.33$, $p < .01$). In addition, there was a significant effect of informants' identities ($\beta = -0.80$, $z = -3.53$, $p < .001$). Specifying the effect of ethnicity,

Figure 3

Percentage of Choices of In-Group Informant on IG Target Trials, Across Question Types, by Trial Type, Ethnicity, and Age



Note. "Jews" and "Arabs" in the legend refer to participants. The dashed line marks chance level. Error bars represent standard errors. The dependent variable is the percentage of selections of IG in expert and preference questions in IG/Conflict OG and in IG/Neutral OG trials. IG = Ingroup; Conflict OG = conflict outgroup; Neutral OG = neutral outgroup.
$^{*}p < .05$. $^{***}p < .001$. $^{\dagger}p = .090$.

Arab participants were 109% more likely than Jewish participants to choose the informant who is different from the target ($OR = 2.09$). Regarding the effect of age, 2nd graders were 85% less likely than kindergartners to choose the informant who is different from the target ($OR = 0.15$). Regarding the effect of informants' identities, participants were 56% less likely to choose the neutral informant than the in-group informant ($OR = 0.44$). These patterns can be seen in Figure 4. Finally, as for the effect of question type, the participants were 113% more likely to choose the informant who is different from the target in the preference question than in the expertise question ($OR = 2.13$).

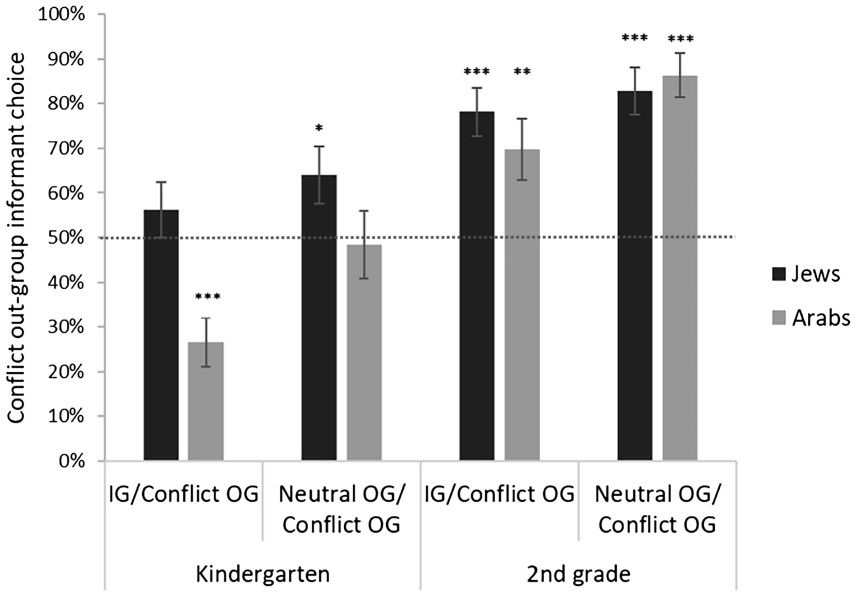
We used one-sample *t* tests to assess whether the percentage of choices of the conflict out-group informant was different from that expected by chance (i.e., against 50%) in each trial type (i.e., IG/Conflict OG trial and Neutral OG/Conflict OG trial). Given the effects of children's ethnicity and age, we broke down these analyses by these factors (see the Supplemental Material for analyses by question type). As can be seen in Figure 4, when choosing an informant about a conflict out-group target (i.e., an Arab for Jewish children), Jewish 2nd graders chose an Arab informant both when the alternative was a Jewish informant or a Scottish informant. Jewish kindergarteners chose the Arab informant only when the alternative was a Scottish informant, but not when the alternative was a Jewish informant. Arab 2nd graders also preferred the conflict out-group informant (in their case, a Jew) significantly above chance when the alternatives were an Arab or a Scottish informant. However, Arab kindergartners exhibited a preference for the Arab informant when the alternative was a Jewish informant, and no preference when the alternative was a Scottish informant.

Neutral Out-Group Target. This was a "control" single trial, in which the informants were a neutral out-group and an in-group. The analysis revealed significant effects of ethnicity ($\beta = 1.12$, $z = -2.81$, $p < .01$), age ($\beta = -1.45$, $z = -3.46$, $p < .01$), and question type ($\beta = 0.73$, $z = 2.24$, $p = .02$). Specifying the effect of ethnicity, Arab participants were 208% more likely than Jewish participants to choose the in-group informant ($OR = 3.08$). As for the effect of age, 2nd graders were 77% less likely than kindergartners to choose the in-group informant ($OR = 0.23$). Finally, the participants were 107% more likely to choose the informant different from the target (i.e., the in-group informant) in the preference question than in the expertise question ($OR = 2.07$).

We used one-sample *t* tests to assess whether the distribution of children in their choice of the neutral out-group informant in expertise and preference questions was different from that expected by chance (i.e., against 50%; see Figure 5). Because there were effects of children's ethnicity and age, we broke down these analyses by these factors (see the Supplemental Material for analyses by question type). As shown in Figure 5, only Jewish 2nd graders preferred the neutral informant over the in-group informant. Jewish and Arab kindergarteners, and Arab 2nd graders, did not show any preference.

Figure 4

Percentage of Choices of Conflict OG Informant on Conflict OG Target Trials, Across Question Type, by Trial Type, Ethnicity, and Age



Note. "Jews" and "Arabs" in the legend refer to participants. The dashed line marks chance level. Error bars represent standard errors. The dependent variable is the percentage of selections of Conflict OG in expertise and preference questions in IG/Conflict OG and in Neutral OG/Conflict OG trials. IG = Ingroup; Conflict OG = conflict outgroup; Neutral OG = neutral outgroup.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Advice Measure

On this measure too, we first ran a GLMM as specified above. We added to the GLMM the effect of valence, coded as to whether the advice of the "target" informant (see below) was negative. Separate analyses were conducted on each trial type. In our second step, we conducted one-sample *t* tests, to determine whether children's choices of informants' advice differed from chance responding. We used the percentage of children choosing a particular informant as the dependent variable, comparing these to a 50/50 distribution between the two potential informants in each trial.

In-Group Target. The analysis revealed no significant effects of ethnicity ($\beta = -0.03$, $z = -0.27$, $p = .78$), age ($\beta = -0.12$, $z = -0.93$, $p = .34$), or informants' identities ($\beta = -0.02$, $z = -0.19$, $p = .84$). There was a significant effect of valence ($\beta = 1.12$, $z = 8.51$, $p < .001$, $OR = 3.06$): Participants were 206% more likely to choose the out-group informant when the advice of the IG informant was negative than when it was positive.

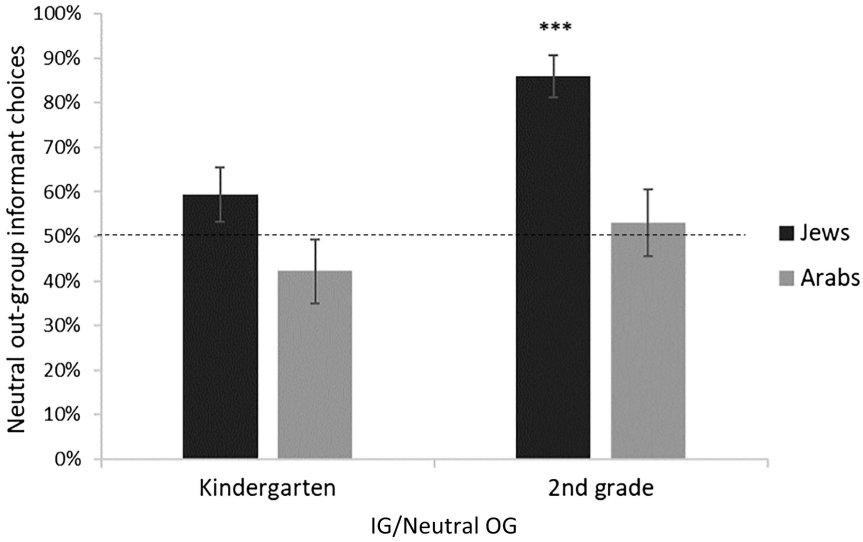
We then conducted one-sample *t* tests to assess whether children's choices differed from chance. Given the null-effect of age and ethnicity, these analyses were conducted across age and ethnicity groups. Given the effect of advice valence, we conducted the analyses separately for positive and negative advice. The analyses revealed that in the IG/Neutral OG trial, children preferred the in-group advice when it was positive ($M = 84.88$, $SD = 29.71$), $t(128) = 13.33$, $p < .001$; but avoided it when it was negative ($M = 30.23$, $SD = 41.18$), $t(128) = -5.45$, $p < .001$. Interestingly, in the IG/Conflict OG trial, children tended to prefer the in-group advice equally whether it was positive ($M = 57.36$, $SD = 45.11$), $t(128) = 1.85$, $p = .066$; or negative ($M = 58.91$, $SD = 46.11$), $t(128) = 2.19$, $p = .030$.

Conflict Out-Group Target. The analysis revealed significant effects of ethnicity ($\beta = 0.32$, $z = 2.46$, $p = .01$), informants' identities ($\beta = -0.25$, $z = -1.95$, $p = .050$), and valence ($\beta = 1.21$, $z = 9.24$, $p < .001$). There was no significant effect of age ($\beta = -0.03$, $z = -0.29$, $p = .76$). Specifying the effect of ethnicity, Arab children were 38% more likely than Jewish children to choose the advice of a Neutral OG or IG informant ($OR = 1.38$). Specifying the effect of informants' identities, children were 23% less likely to choose the advice of a neutral informant than that of the in-group ($OR = 0.77$). Finally, the participants were 236% more likely to choose the Neutral OG or IG informant when their advice was positive than when it was negative ($OR = 3.36$). Figure 6 displays these patterns.

We then conducted one-sample *t* tests broken down by the different independent factors that showed significant effects in the GLMMs. The results are displayed in Figure 6. Somewhat similar to the IG target trials, here too, in the Neutral OG/Conflict OG trial, Jewish and Arab children responded in the same fashion: They systematically accepted the positive advice no matter the identity of the informant. In turn, in the IG/Conflict OG trial, whereas Arab children exhibited the same "positivity" pattern as above, Jewish children exhibited the opposite pattern: They systematically accepted the *negative* advice, no matter who delivered it.

Figure 5

Percentage of Choices of Neutral Out-Group Informant on the Neutral OG Target Trial, Across Question Types, by Ethnicity, and Age

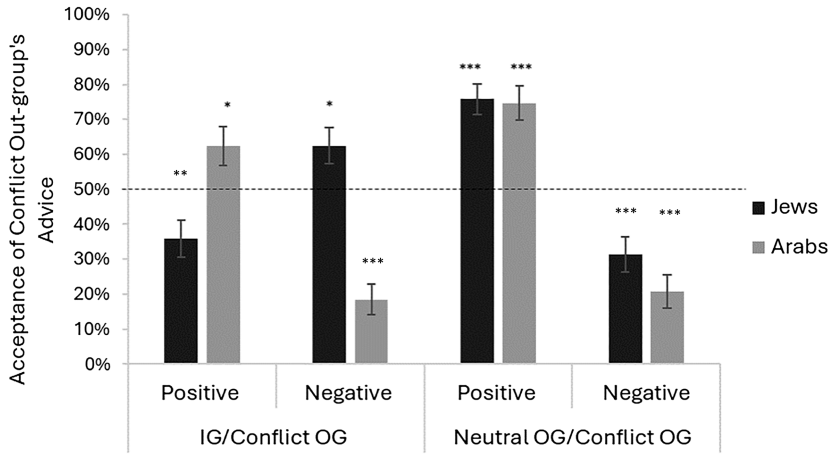


Note. "Jews" and "Arabs" in the legend refer to participants. The dashed line marks chance level. Error bars represent standard errors. The dependent variable is the percentage of selections of neutral informant. IG = Ingroup; Neutral OG = neutral outgroup.
*** $p < .001$.

Neutral Out-Group Target. The analysis revealed no effect of age ($\beta = 0.06$, $z = 0.32$, $p = .74$), a close to significant effect of ethnicity ($\beta = 0.41$, $z = 1.93$, $p = .053$), and a significant effect of valence ($\beta = -2.28$, $z = -10.77$, $p < .001$). Specifying the effect of ethnicity, Arab children were 50% more likely than Jewish children to choose the advice of the in-group informant ($OR = 1.50$). Regarding the effect of valence, children were 90% less likely to choose the IG informant when his/her advice was negative than

Figure 6

Percentage of Trials in Which Jewish and Arab Children, Across Ages, Preferred Conflict Out-Group's Positive and Negative Advice, When the Target Was a Conflict Out-Group Member



Note. "Jews" and "Arabs" in the legend refer to participants. On the *x* axis, "Positive" and "Negative" refer to the valence of the Conflict OG's advice in IG/Conflict OG and in Neutral OG/Conflict OG trials. The *y* axis reflects the percentage of times the Conflict OG informant's advice was selected, in these respective trial types. The dashed line marks chance level. Error bars represent standard errors. IG = Ingroup; Conflict OG = conflict outgroup; Neutral OG = neutral outgroup.
* $p < .05$. ** $p \leq .01$. *** $p < .001$.

when it was positive ($OR = 0.10$). As can be seen in Figure 7, one-sample t tests revealed that Jewish and Arab children preferred the Neutral OG informant's advice when it was positive, and refused it when it was negative.

Discussion

Study 2 revealed that Jewish and Arab Israeli children have biases regarding the source of social information. Children's choices of informants varied depending on the identity of the target individuals, the identity of the informants offering information, and the valence of advices given as to how to relate to the different targets. Here, we summarize the main findings, and will discuss them in more detail in the General Discussion section.

When the target was an in-group member, both Jewish and Arab children, from both ages, perceived the in-group informant as an expert and preferred him/her as an informant over any out-group informant—be they a conflict out-group informant or a neutral one. This in-group favoritism was stronger among 2nd graders than kindergartners, among Arab than Jewish children, and when the question was about preference rather than expertise. Interestingly, in-group favoritism did not have as great an impact on children's acceptance of advice as to how to relate to an in-group target. Instead, the valence of the advice was more determinant. This was clearly the case when the alternative informants were an in-group and a neutral out-group, in which cases children from both ethnicities and ages followed whoever provided positive advice (e.g., advice to play with the in-group). In turn, when the alternative informants were an in-group and a conflict out-group, then children tended to accept the in-group's advice, no matter its valence.

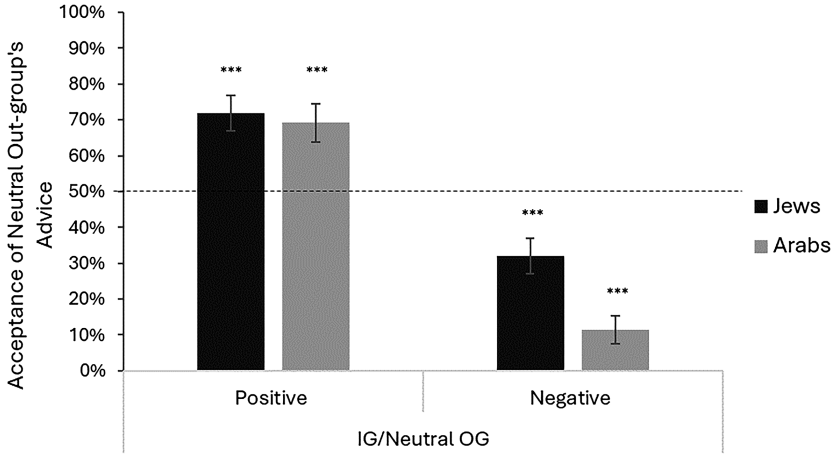
When the target was a conflict out-group member, again there were indications of in-group favoritism, for instance, as children were more likely to choose an in-group informant than a neutral out-group informant. Nevertheless, children's intergroup bias was much more nuanced, especially from a developmental perspective. Specifically, both Jewish and Arab 2nd graders chose the conflict out-group as a preferred informant when the alternative was a neutral out-group but even when the alternative was an in-group informant. In contrast, kindergarteners were more reluctant to choose conflict out-group informants. In fact, Jewish kindergarteners did so only when the alternative was a neutral out-group, and Arab children actually preferred an in-group informant when the alternative was a conflict out-group informant. In a sense, in the balance between epistemic (i.e., selecting an informant from the same group as the target) and group identity cues (i.e., selecting an informant from their own group), whereas 2nd graders privileged the former over the latter, for kindergarteners it was a closer contest.

This nuance was also manifest in children's responses to informants' relational advice. Overall, children evinced a positivity bias and were more likely to accept positive than negative advice, especially when the alternative informants were a conflict and a neutral out-group. Interestingly, when the target was a conflict out-group and the alternative informants a conflict out-group and an in-group, then Arab children followed the positive advisors, whereas Jewish children followed the negative ones. A final noteworthy finding is that in these trials too, across measures, we found a significant difference between ethnic groups, with Arab children being more reluctant than Jewish children to choose a conflict out-group informant.

Finally, when the target was a neutral out-group member, many of the patterns revealed above were manifested more straightforwardly: Children's choice of the in-group informant was more frequent among Arab than Jewish children, kindergarteners than 2nd graders, and in the preference than in the expertise question.

Figure 7

Percentage of Trials in Which Jewish and Arab Children, Across Ages, Preferred Neutral Out-Group's Positive and Negative Advice, When the Target Was a Neutral Out-Group Member



Note. "Jews" and "Arabs" in the legend refer to participants. On the x axis, "Positive" and "Negative" refer to the valence of the Neutral OG's advice. The y axis reflects the percentage of times the Neutral OG informant's advice was selected. The dashed line marks chance level. Error bars represent standard errors. IG = Ingroup; Neutral OG = neutral outgroup.
*** $p < .001$.

Moreover, both ethnic and age groups were similarly biased to accept positive advice from whoever delivered it.

One final note regarding the present findings has to do with the difference observed between children's responses to the preference and expertise questions. Namely, across targets and informants, children were more likely to select the nontarget informant in response to the preference than the expertise question. This was an unexpected finding, and rather than speculating on possible theoretical explanations, we suggest that, given its generality, it might reflect an unintended methodological artifact. Namely, the expertise question always preceded the preference question. It is possible that given this fixed order and the similarity between the two questions, children may have been inclined to provide a different answer to the second question (Ceci & Bruck, 1993).

General Discussion

The present research explored potential intergroup biases among Jewish and Arab Israeli kindergartners and 2nd graders, in their preferences for in- versus out-group informants. For this purpose, we first tested these potential biases vis-a-vis nonsocial information (Study 1), wherein the only cue provided to children to choose by was informants' group membership. We then tested potential biases regarding social information (Study 2), as children learned about in- and out-group individuals, from in- and out-group informants. Study 2 thus offered children two cues to decide by whether or not the informant was from their in-group (a social identity cue) and whether or not the informant was from the same group as the target (an expertise—epistemic—cue). Both studies tested the biases in three respects: informant expertise, informant preference, and acceptance of informant's advice.

The findings revealed that, overall, Jewish and Arab Israeli children manifested intergroup bias as they chose an in-group informant over out-group informants, both as an expert and preferred source, when considering nonsocial and social information. These findings are in line with children's general preference to receive information from members of their group over out-groups regarding nonsocial topics (Chen et al., 2011; Corriveau et al., 2013; Elashi & Mills, 2014; McDonald & Ma, 2016; Shutts et al., 2010).

These findings contribute in a number of ways to the limited body of research focusing on social targets (Aldan & Soley, 2019; Chalik et al., 2022; Farooq et al., 2022). First, Study 2 revealed that children's informant preferences corresponded to their typical attitudinal biases. In particular, as manifested in various ways, children were more open to receiving information from a neutral out-group (a Scot) than from a conflict out-group (Arab or Jew). In other words, not all out-groups were equally avoided, but instead, those reportedly least liked were avoided more (although there was no direct assessment here of children's attitudes toward the different groups, a study on similar populations indeed found this gradient of attitudinal biases, Nasie et al., 2022). A further difference between a neutral and a conflict out-group is the degree of children's familiarity with them. This factor, however, seems a less likely candidate to explain the pattern of responses here. Given that children were likely more familiar with the conflict than the neutral out-group, we would have expected them to resort to the former more than to the latter—that is, the opposite of what they did. Evidently, whether children's avoidance derived from a generalized dislike, from differences in familiarity, or from a more sophisticated vigilance regarding informants' motives remains to be examined. In any case, this finding has practical implications as to who may be more effective agents for fostering children's attitude change.

A second novel finding was that the bias was stronger among Arab participants—from both age groups—compared with Jewish participants, especially in Study 2 when the information was about people rather than places. For instance, compared with Jewish children, Arab children were more likely to select an in-group informant when the target was an in-group, but were also more likely to refuse a conflict out-group informant (i.e., a Jew, in their case) when the target was a conflict out-group (another Jew). On the one hand, one could have expected that as members of a minority group and thus more used to receiving information from Jewish sources (e.g., TV programs), Arab children would be less reluctant to receive information from Jewish informants. The fact that the pattern observed here was the opposite, may be indicative of Arab children's awareness of their lower social, economic, and political status, and experiences of marginalization (Bar-Haim & Semyonov, 2015). In fact, Arab children in Israel seem to develop out-group dislike at a younger age than Jewish children (Nassir & Diesendruck, 2024). In general, the current finding aligns with research among adults showing that minority or low-status groups exhibit stronger levels of mistrust toward majority group members, as a protective mechanism against perceived threats and unfavorable treatment (Dovidio et al., 2008; Lount & Pettit, 2012; Navarro-Carrillo et al., 2018). It is revealing that this potential mistrust was found here already by age 5 years.

Evidently, this interpretation is speculative. First, the present studies did not directly assess children's intergroup attitudes or perceptions of group status. Thus, to more conclusively determine whether these factors can explain the observed differences between Arab and Jewish children, the factors need to be directly assessed. Second, Jewish and Arab participants also varied in two other respects—besides their group status—that might have influenced their responses. Namely, whereas the Jewish sample consisted of children from middle-class secular families, the Arab sample came from low-to-middle-class religious families. These differences in socioeconomic status and religiosity—particularly in aspects such as parental education and preferences for informational sources—may have affected the observed trust strategies, independent of group affiliation. Although we agree that these are important variables to consider in future work, these group characteristics are representative of these two large populations within Israeli society, from which the samples were drawn.

The interpretation of the above pattern is further illuminated by the developmental findings. First, although no developmental differences were observed in children's judgments of expertise and informant preference in the nonsocial context of Study 1, developmental differences did occur in Study 2. In other words, when the only cue for selecting informants was whether they were in- or out-group—as was the case in Study 1—kindergarteners responded similarly to 2nd graders. However, when the context required balancing between this group membership cue and an epistemic cue—namely, whether or not the informant was from the same group as the target—then developmental differences emerged. Specifically, irrespective of the target's identity, 2nd graders more often than kindergarteners selected the informant from the target's group. In fact, in most cases, 2nd graders privileged an informant

from the target group, even when the target was a conflict out-group and there was an in-group informant available. Kindergartners almost never did so. For instance, in the trial type just described, Arab kindergarteners actually preferred the in-group informant (i.e., an Arab) over the target—conflict out-group—informant (a Jew). Thus, in balancing epistemic versus identity cues, whereas 2nd graders prioritized the former over the latter, kindergarteners tended toward the opposite—a developmental trend reminiscent of previous studies that pitted accuracy against social group membership in an object labeling context (e.g., Elashi & Mills, 2014; MacDonald et al., 2013).

One explanation for this developmental finding could have been that older children, being more aware of social mores, felt less comfortable manifesting a bias in favor of their group. In fact, work in the United States has documented a related reluctance to even talk about race as children mature (Apfelbaum et al., 2008). In contrast, however, work in Israel has shown that even by 5th grade, both Jewish and Arab children show little hesitation to talk about ethnicity (Deeb et al., 2011), and in fact, a recent study found that Arab 5th graders were more likely than kindergarteners to manifest negative attitudes toward Jews (Nassir & Diesendruck, 2024). Thus, awareness of social mores does not seem a plausible explanation for the developmental pattern found here. A further explanation is that although by kindergarten age, children are quite adept at relying on expertise as a cue for selecting informants (Clegg et al., 2019; Lutz & Keil, 2002), there are still substantial improvements in this capacity in the following years (Elashi & Mills, 2014; Marble & Boseovski, 2019). Thus, the developmental difference found here might partly derive from differences in kindergartners versus 2nd graders' capacities to rely on epistemic cues. Alternatively, previous research indicates developmental changes in children's intergroup bias, which seem to decline between ages 5–7 to 8–10 years (Bar-Tal & Teichman, 2005; Raabe & Beelmann, 2011). This may further explain the greater weight kindergarteners in the present study placed on group membership, compared with 2nd graders.

A final set of explanations for this developmental pattern focuses not on processes pertinent to each cue, but instead on the capacity to integrate them. In particular, the ability to value epistemic cues over social identity ones may rely on executive functions—especially inhibitory control—that mature during early to middle childhood (Diamond, 2013). As children age, they become increasingly capable of suppressing intuitive responses in favor of more cognitively demanding strategies, such as evaluating the relevance and reliability of epistemic information (see, e.g., Bjorklund & Harnishfeger, 1990). Second graders, compared with younger children, are likely better able to inhibit superficial or irrelevant cues and instead prioritize epistemic cues that are more predictive of informational accuracy. A related account draws from a dual-process model as applied to the domain of selective trust (Hermes et al., 2018). On this account, younger children may have resolved the conflict between the cues via the most readily accessible Type I processes. Arguably, this would lead them to rely on group membership—a fairly early developing capacity (see for instance, Rhodes & Baron, 2019)—rather than on the indirectly implied epistemic cue. Second graders would be more capable of integrating via Type II processes the two types of cues.

The findings regarding the acceptance of informants' advice confirmed some of the above findings but also revealed unique patterns. First, children predominantly exhibited a positivity bias (Aldan & Soley, 2019; Boseovski, 2012; Boseovski & Thurman, 2014) rather than an in-group bias. That is, children often chose the informant who provided positive advice (e.g., to play with the target), regardless of their group membership. This tendency was particularly evident when the alternative informants were an in-group and a neutral out-group member, or a conflict out-group and a neutral out-group member. Again, however, when the target was a conflict out-group member, the findings revealed a more complex pattern. Interestingly, Aldan and Soley (2019) also found that when the target was an out-group, children's responses varied, such that they were more trusting of an in-group over an out-group informant's positive advice regarding an out-group target. In the present studies, the added complexity was that children's responses varied depending on their own ethnicity. Specifically, whereas Arab children still manifested a positivity bias, Jewish children did the opposite, accepting the negative advice from whoever delivered it.

The present pattern resonates with the notion of "echo chambers," with children accepting advice that fits their beliefs (see also Chalik et al., 2022). Somewhat surprisingly, though, given that Arab children here and in other studies (e.g., Nassir & Diesendruck, 2024) manifest intergroup bias as strongly as Jewish children, it is unclear why in this particular case only Jewish children exhibited this response pattern. One possible explanation has to do with differences between majority and minority group members in the Israeli context, in their motivations for intergroup contact. As a minority group, Arab citizens may have more necessary reasons to engage with Jewish individuals in order to navigate broader societal structures—such as education, employment, and public services—that are largely shaped by the Jewish majority. These asymmetries in power and access may foster more instrumental or necessity-driven contact from the minority group. In other words, minority members may be more eager to follow encouragement to interact with majority members. In contrast, Jewish majority members may encounter fewer structural incentives for intergroup engagement, potentially making their motivations for contact more selective or ideologically driven. This explanation is reflected, for example, in the differing perceptions of Jewish and Arabs parents regarding shared Jewish–Arab education (e.g., Bekerman & Tatar, 2009; Nasser, 2011).

In general, the present research unveils the importance of considering the identity of informants when providing information of different kinds to children. One question the findings raise is whether the pattern found here generalizes to other groups in other social contexts. In particular, the overall finding that both Jewish and Arab kindergarteners were biased in favor of social group cues over epistemic cues contrasts with previous findings. For instance, past research has shown that in certain contexts, epistemic cues (i.e., accuracy) trump certain social cues (e.g., accent, age) in children's decisions about whom to trust (Corriveau et al., 2013; Jaswal & Neely, 2006), and yet in others the contrasting cues leave children undecided (e.g., Chalik et al., 2022). One possible explanation for these differences has to do with the salience of the social groups assessed here, compared with groups present in other cultures (see for instance, Diesendruck et al., 2013). A further, related, explanation has to do with the nature of the social groups assessed here, namely, groups associated with a long-lasting and especially tense conflict. In such societies, children's conceptualization of social groups may be especially influential in their feelings toward the groups (e.g., Bar-Tal et al., 2017; O'Driscoll et al., 2021). It will be valuable for future research to explore these processes across diverse

social categories and cultural contexts to clarify the scope and limits of these effects. Future work could also expand this line of investigation, by examining whether children display the same patterns when receiving intergroup information from adults or other sources (e.g., media, books). In addition, it would be valuable to investigate the long-term effects of receiving advice from informants and how this advice might generalize from relationships with an individual to those with a group as a whole.

As a final note, we chose to explicitly label the social group membership of each character (e.g., "This is an Arab boy"), accompanied by a culturally distinctive name (e.g., "Salem"), to ensure that children across the full age range clearly understood the group distinctions relevant to the task. While this approach was intended to support comprehension—particularly among younger participants—we acknowledge that such explicit labeling may have heightened the salience of social categories beyond what children typically encounter in everyday settings, thereby limiting ecological validity, especially in case of in-group members. This increased salience could have influenced children's responses by drawing greater attention to group membership. As such, their responses may reflect both their intergroup biases and their reactions to overtly marked group boundaries. Future research would benefit from using more ecologically valid indicators of group membership, where relevant—such as linguistic cues (e.g., accent), names, or visual markers—to better capture how children infer and respond to social categories in real-world contexts.

Overall, the present research revealed intergroup biases in children's trust on information sources, particularly in the context of learning about people. These biases were especially pronounced in the preference for in-group over out-group informants, and an avoidance of conflict out-group informants. Interestingly, younger children exhibited these biases more strongly than older children, and minority (Arab) children more than majority (Jewish) ones. These findings pave the way for a deeper understanding of intergroup biases in conflictual contexts and hold important implications regarding how to transmit information to children about different groups.

References

Aldan, P., & Soley, G. (2019). The role of intergroup biases in children's endorsement of information about novel individuals. *Journal of Experimental Child Psychology*, *179*, 291–307. https://doi.org/10.1016/j.jecp.2018.11.007

Apfelbaum, E. P., Pauker, K., Ambady, N., Sommers, S. R., & Norton, M. I. (2008). Learning (not) to talk about race: When older children underperform in social categorization. *Developmental Psychology*, *44*(5), 1513–1518. https://doi.org/10.1037/a0012835

Bar-Haim, E., & Semyonov, M. (2015). Ethnic stratification in Israel. In R. Sáenz, D. G. Embrick, & N. P. Rodríguez (Eds.), *The international handbook of the demography of race and ethnicity* (pp. 323–337). Springer. https://doi.org/10.1007/978-90-481-8891-8_16

Baron, A., & Banaji, M. (2009). Evidence of system justification in young children. *Social and Personality Psychology Compass*, *3*(6), 918–926. https://doi.org/10.1111/j.1751-9004.2009.00214.x

Bar-Tal, D., Diamond, A. H., & Nasie, M. (2017). Political socialization of young children in intractable conflicts: Conception and evidence. *International Journal of Behavioral Development*, *41*(3), 415–425. https://doi.org/10.1177/0165025416652508

Bar-Tal, D., & Teichman, Y. (2005). *Stereotypes and prejudice in conflict: Representations of Arabs in Israeli Jewish society*. Cambridge University Press. https://doi.org/10.1017/CBO9780511499814

Bascandziev, I., & Harris, P. L. (2016). The beautiful and the accurate: Are children's selective trust decisions biased? *Journal of Experimental Child Psychology*, *152*, 92–105. https://doi.org/10.1016/j.jecp.2016.06.017

Bekerman, Z., & Tatar, M. (2009). Parental choice of schools and parents' perceptions of multicultural and co-existence education: The case of the Israeli Palestinian–Jewish bilingual primary schools. *European Early Childhood Education Research Journal*, *17*(2), 171–185. https://doi.org/10.1080/13502930902951304

Bigler, R. S., & Liben, L. S. (2007). Developmental intergroup theory: Explaining and reducing children's social stereotyping and prejudice. *Current Directions in Psychological Science*, *16*(3), 162–166. https://doi.org/10.1111/j.1467-8721.2007.00496.x

Birch, S. A. J., Vauthier, S. A., & Bloom, P. (2008). Three- and four-year-olds spontaneously use others' past performance to guide their learning. *Cognition*, *107*(3), 1018–1034. https://doi.org/10.1016/j.cognition.2007.12.008

Bjorklund, D. F., & Harnishfeger, K. K. (1990). The resources construct in cognitive development: Diverse sources of evidence and a theory of inefficient inhibition. *Developmental Review*, *10*(1), 48–71. https://doi.org/10.1016/0273-2297(90)90004-N

Boseovski, J. J. (2012). Trust in testimony about strangers: Young children prefer reliable informants who make positive attributions. *Journal of Experimental Child Psychology*, *111*(3), 543–551. https://doi.org/10.1016/j.jecp.2011.10.008

Boseovski, J. J., & Thurman, S. L. (2014). Evaluating and approaching a strange animal: Children's trust in informant testimony. *Child Development*, *85*(2), 824–834. https://doi.org/10.1111/cdev.12156

Brenick, A., Killen, M., Lee-Kim, J., Fox, N., Leavitt, L., Raviv, A., Masalha, S., Murra, F., & Al-Smadi, Y. (2010). Social understanding in young Israeli-Jewish, Israeli-Palestinian, Palestinian, and Jordanian children: Moral judgments and stereotypes. *Early Education and Development*, *21*(6), 886–911. https://doi.org/10.1080/10409280903236598

Brosseau-Liard, P. E., & Birch, S. A. (2010). "I bet you know more and are nicer too!": What children infer from others' accuracy. *Developmental Science*, *13*(5), 772–778. https://doi.org/10.1111/j.1467-7687.2009.00932.x

Buttelmann, D., & Böhm, R. (2014). The ontogeny of the motivation that underlies in-group bias. *Psychological Science*, *25*(4), 921–927. https://doi.org/10.1177/0956797613516802

Ceci, S. J., & Bruck, M. (1993). Suggestibility of the child witness: A historical review and synthesis. *Psychological Bulletin*, *113*(3), 403–439. https://doi.org/10.1037/0033-2909.113.3.403

Chalik, L., Over, H., & Dunham, Y. (2022). Preschool children weigh accuracy against partisanship when seeking information. *Journal of Experimental Child Psychology*, *220*, Article 105423. https://doi.org/10.1016/j.jecp.2022.105423

Chen, E. E., Corriveau, K. H., & Harris, P. L. (2011). Children are sociologists. *Anales de Psicología*, *27*(3), 625–630.

Chen, E. E., Corriveau, K. H., & Harris, P. L. (2013). Children trust a consensus composed of outgroup members—But do not retain that trust. *Child Development*, *84*(1), 269–282. https://doi.org/10.1111/j.1467-8624.2012.01850.x

Clegg, J. M., Kurkul, K. E., & Corriveau, K. H. (2019). Trust me, I'm a competent expert: Developmental differences in children's use of an expert's explanation quality to infer trustworthiness. *Journal of Experimental Child Psychology*, *188*, Article 104670. https://doi.org/10.1016/j.jecp.2019.104670

Corenblum, B. (2003). What children remember about ingroup and outgroup peers: Effects of stereotypes on children's processing of information about group members. *Journal of Experimental Child Psychology*, *86*(1), 32–66. https://doi.org/10.1016/S0022-0965(03)00105-X

Corriveau, K. H., & Harris, P. L. (2009). Choosing your informant: Weighing familiarity and recent accuracy. *Developmental Science*, *12*(3), 426–437. https://doi.org/10.1111/j.1467-7687.2008.00792.x

Corriveau, K. H., Harris, P. L., Meins, E., Fernyhough, C., Arnott, B., Elliott, L., Liddle, B., Hearn, A., Vittorini, L., & de Rosnay, M. (2009). Young children's trust in their mother's claims: Longitudinal links with attachment security in infancy. *Child Development*, *80*(3), 750–761. https://doi.org/10.1111/j.1467-8624.2009.01295.x

Corriveau, K. H., Kinzler, K. D., & Harris, P. L. (2013). Accuracy trumps accent in children's endorsement of object labels. *Developmental Psychology*, *49*(3), 470–479. https://doi.org/10.1037/a0030604

Deeb, I., Segall, G., Birnbaum, D., Ben-Eliyahu, A., & Diesendruck, G. (2011). Seeing isn't believing: The effect of intergroup exposure on children's essentialist beliefs about ethnic categories. *Journal of Personality and Social Psychology*, *101*(6), 1139–1156. https://doi.org/10.1037/a0026107

Diamond, A. (2013). Executive functions. *Annual Review of Psychology*, *64*(1), 135–168. https://doi.org/10.1146/annurev-psych-113011-143750

Diesendruck, G., Goldfein-Elbaz, R., Rhodes, M., Gelman, S., & Neumark, N. (2013). Cross-cultural differences in children's beliefs about the objectivity of social categories. *Child Development*, *84*(6), 1906–1917. https://doi.org/10.1111/cdev.12108

Dovidio, J. F., Gaertner, S. L., John, M. S., Halabi, S., Saguy, T., Pearson, A. R., & Riek, B. M. (2008). Majority and minority perspectives in intergroup relations: The role of contact, group representations, threat, and trust in intergroup conflict and reconciliation. In A. Nadler, T. E. Malloy, & J. D. Fisher (Eds.), *The social psychology of intergroup reconciliation* (pp. 227–254). Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195300314.003.0011

Dunham, Y. (2018). Mere membership. *Trends in Cognitive Sciences*, *22*(9), 780–793. https://doi.org/10.1016/j.tics.2018.06.004

Dunham, Y., Baron, A. S., & Banaji, M. R. (2007). Children and social groups: A developmental analysis of implicit consistency in Hispanic Americans. *Self and Identity*, *6*(2–3), 238–255. https://doi.org/10.1080/15298860601115344

Dunham, Y., Baron, A. S., & Carey, S. (2011). Consequences of "minimal" group affiliations in children. *Child Development*, *82*(3), 793–811. https://doi.org/10.1111/j.1467-8624.2011.01577.x

Dunham, Y., Newheiser, A. K., Hoosain, L., Merrill, A., & Olson, K. R. (2014). From a different vantage: Intergroup attitudes among children from low-and intermediate-status racial groups. *Social Cognition*, *32*(1), 1–21. https://doi.org/10.1521/soco.2014.32.1.1

Elashi, F. B., & Mills, C. M. (2014). Do children trust based on group membership or prior accuracy? The role of novel group membership in children's trust decisions. *Journal of Experimental Child Psychology*, *128*, 88–104. https://doi.org/10.1016/j.jecp.2014.07.003

Farooq, A., Ketzitzidou Argyri, E., Adlam, A., & Rutland, A. (2022). Children and adolescents' ingroup biases and developmental differences in evaluations of peers who misinform. *Frontiers in Psychology*, *13*, Article 835695. https://doi.org/10.3389/fpsyg.2022.835695

Gonzalez, A. M., Steele, J. R., & Baron, A. S. (2017). Reducing children's implicit racial bias through exposure to positive out-group exemplars. *Child Development*, *88*(1), 123–130. https://doi.org/10.1111/cdev.12582

Harris, P. L. (2007). Social cognition. In D. Kuhn, R. S. Siegler, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology: Cognition, perception, and language* (pp. 811–858). Wiley.

Harris, P. L., & Corriveau, K. H. (2011). Young children's selective trust in informants. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *366*(1567), 1179–1187. https://doi.org/10.1098/rstb.2010.0321

Harris, P. L., & Koenig, M. A. (2006). Trust in testimony: How children learn about science and religion. *Child Development*, *77*(3), 505–524. https://doi.org/10.1111/j.1467-8624.2006.00886.x

Harris, P. L., Koenig, M. A., Corriveau, K. H., & Jaswal, V. K. (2018). Cognitive foundations of learning from testimony. *Annual Review of Psychology*, *69*(1), 251–273. https://doi.org/10.1146/annurev-psych-122216-011710

Hayes, B. K., Foster, K., & Gadd, N. (2003). Prior knowledge and subtyping effects in children's category learning. *Cognition*, *88*(2), 171–199. https://doi.org/10.1016/S0010-0277(03)00021-0

Hermes, J., Behne, T., & Rakoczy, H. (2018). The development of selective trust: Prospects for a dual-process account. *Child Development Perspectives*, *12*(2), 134–138. https://doi.org/10.1111/cdep.12274

Hetherington, C., Hendrickson, C., & Koenig, M. (2014). Reducing an ingroup bias in preschool children: The impact of moral behavior. *Developmental Science*, *17*(6), 1042–1049. https://doi.org/10.1111/desc.12192

Jaffer, S., & Ma, L. (2015). Preschoolers show less trust in physically disabled or obese informants. *Frontiers in Psychology*, *5*, Article 1524. https://doi.org/10.3389/fpsyg.2014.01524

Jaswal, V. K., & Neely, L. A. (2006). Adults don't always know best: Preschoolers use past reliability over age when learning new words. *Psychological Science*, *17*(9), 757–758. https://doi.org/10.1111/j.1467-9280.2006.01778.x

Kinzler, K. D., Corriveau, K. H., & Harris, P. L. (2011). Children's selective trust in native-accented speakers. *Developmental Science*, *14*(1), 106–111. https://doi.org/10.1111/j.1467-7687.2010.00965.x

Koenig, M. A., & Harris, P. L. (2005). Preschoolers mistrust ignorant and inaccurate speakers. *Child Development*, *76*(6), 1261–1277. https://doi.org/10.1111/j.1467-8624.2005.00849.x

Koenig, M. A., & Jaswal, V. K. (2011). Characterizing children's expectations about expertise and incompetence: Halo or pitchfork effects? *Child Development*, *82*(5), 1634–1647. https://doi.org/10.1111/j.1467-8624.2011.01618.x

Leonardelli, G. J., & Brewer, M. B. (2001). Minority and majority discrimination: When and why. *Journal of Experimental Social Psychology*, *37*(6), 468–485. https://doi.org/10.1006/jesp.2001.1475

Li, P. H., & Koenig, M. A. (2022). The roles of group membership and social exclusion in children's testimonial learning. *Journal of Experimental Child Psychology*, *216*, Article 105342. https://doi.org/10.1016/j.jecp.2021.105342

Lorah, J. (2018). Effect size measures for multilevel models: Definition, interpretation, and TIMSS example. *Large-Scale Assessments in Education*, *6*(1), Article 8. https://doi.org/10.1186/s40536-018-0061-2

Lount, R. B., Jr., & Pettit, N. C. (2012). The social context of trust: The role of status. *Organizational Behavior and Human Decision Processes*, *117*(1), 15–23. https://doi.org/10.1016/j.obhdp.2011.07.005

Lutz, D. J., & Keil, F. C. (2002). Early understanding of the division of cognitive labor. *Child Development*, *73*(4), 1073–1084. https://doi.org/10.1111/1467-8624.00458

MacDonald, K., Schug, M., Chase, E., & Barth, H. (2013). My people, right or wrong? Minimal group membership disrupts preschoolers' selective trust. *Cognitive Development*, *28*(3), 247–259. https://doi.org/10.1016/j.cogdev.2012.11.001

Marble, K. E., & Boseovski, J. J. (2019). Children's judgments of cultural expertise: The influence of cultural status and learning method. *The Journal of Genetic Psychology*, *180*(1), 17–30. https://doi.org/10.1080/00221325.2018.1562418

McDonald, K. P., & Ma, L. (2016). Preschoolers' credulity toward misinformation from ingroup versus outgroup speakers. *Journal of Experimental Child Psychology*, *148*, 87–100. https://doi.org/10.1016/j.jecp.2016.03.011

Mills, C. M. (2013). Knowing when to doubt: Developing a critical stance when learning from others. *Developmental Psychology*, *49*(3), 404–418. https://doi.org/10.1037/a0029500

Nasie, M., Abofoul, S., Ankri-Guedj, A., & Diesendruck, G. (2025). *Intergroup bias in children's preference for in- vs. out-group informants*. Open Science Framework. https://osf.io/3bkcn/?view_only=c47e37fe51a841968cb019104825ec14

Nasie, M., Ben Yaakov, O., Nassir, Y., & Diesendruck, G. (2022). Children's biased preference for information about in- and out-groups. *Developmental Psychology*, *58*(3), 493–509. https://doi.org/10.1037/dev0001304

Nasie, M., Diamond, A. H., & Bar-Tal, D. (2016). Young children in intractable conflicts: The Israeli case. *Personality and Social Psychology Review*, *20*(4), 365–392. https://doi.org/10.1177/1088868315607800

Nasie, M., & Diesendruck, G. (2020). What children want to know about in- and out-groups, and how knowledge affects their intergroup attitudes. *Social Development*, *29*(2), 443–460. https://doi.org/10.1111/sode.12408

Nasser, I. (2011). Perspectives of Palestinian and Jewish parents in Israel on bilingual education. *International Journal of Bilingual Education and Bilingualism*, *14*(3), 301–318. https://doi.org/10.1080/13670050.2010.497203

Nassir, Y., & Diesendruck, G. (2024). Priming group identities affects children's resource distribution among groups. *Child Development*, *95*(2), 409–427. https://doi.org/10.1111/cdev.13995

Navarro-Carrillo, G., Valor-Segura, I., & Moya, M. (2018). Do you trust strangers, close acquaintances, and members of your ingroup? Differences in trust based on social class in Spain. *Social Indicators Research*, *135*(2), 585–597. https://doi.org/10.1007/s11205-016-1527-7

Nesdale, D. (2004). Social identity processes and children's ethnic prejudice. In M. Bennett & F. Sani (Eds.), *The development of the social self* (pp. 219–245). Psychology Press. https://doi.org/10.4324/9780203391099_chapter_8

Nickerson, R. S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, *2*(2), 175–220. https://doi.org/10.1037/1089-2680.2.2.175

O'Driscoll, D., Taylor, L. K., & Dautel, J. B. (2021). Essentialist beliefs affect children's outgroup empathy, attitudes and prosocial behaviours in a setting of intergroup conflict. *International Journal of Psychology*, *56*(1), 151–156. https://doi.org/10.1002/ijop.12679

Over, H., Eggleston, A., Bell, J., & Dunham, Y. (2018). Young children seek out biased information about social groups. *Developmental Science*, *21*(3), Article e12580. https://doi.org/10.1111/desc.12580

Poulin-Dubois, D., & Brosseau-Liard, P. (2016). The developmental origins of selective social learning. *Current Directions in Psychological Science*, *25*(1), 60–64. https://doi.org/10.1177/0963721415613962

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

Rhodes, M., & Baron, A. (2019). The development of social categorization. *Annual Review of Developmental Psychology*, *1*(1), 359–386. https://doi.org/10.1146/annurev-devpsych-121318-084824

Selya, A. S., Rose, J. S., Dierker, L. C., Hedeker, D., & Mermelstein, R. J. (2012). A practical guide to calculating Cohen's f^2, a measure of local effect size, from PROC MIXED. *Frontiers in Psychology*, *3*, Article 111. https://doi.org/10.3389/fpsyg.2012.00111

Shutts, K., Banaji, M. R., & Spelke, E. S. (2010). Social categories guide young children's preferences for novel objects. *Developmental Science*, *13*(4), 599–610. https://doi.org/10.1111/j.1467-7687.2009.00913.x

Shutts, K., Kinzler, K. D., Katz, R. C., Tredoux, C., & Spelke, E. S. (2011). Race preferences in children: Insights from South Africa. *Developmental Science*, *14*(6), 1283–1291. https://doi.org/10.1111/j.1467-7687.2011.01072.x

Taylor, M. G. (2013). Gender influences on children's selective trust of adult testimony. *Journal of Experimental Child Psychology*, *115*(4), 672–690. https://doi.org/10.1016/j.jecp.2013.04.003

Tong, Y., Wang, F., & Danovitch, J. (2020). The role of epistemic and social characteristics in children's selective trust: Three meta-analyses. *Developmental Science*, *23*(2), Article e12895. https://doi.org/10.1111/desc.12895

Wilks, M., Kirby, J., & Nielsen, M. (2019). Developmental changes in young children's willingness to copy the antisocial actions of ingroup members in a minimal group context. *Developmental Psychology*, *55*(4), 709–721. https://doi.org/10.1037/dev0000667

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