


Children's Perceptions of Economic Groups in a Context of Limited Access to Opportunities

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Children ($N = 267$, ages 8–14 years, $M = 11.61$ years, middle to upper-middle income) made predictions regarding groups of same-aged peers from high-wealth and low-wealth backgrounds. The context involved granting access to a special opportunity. From middle childhood to early adolescence children increasingly expected both high- and low-wealth groups to want access to opportunities for their own group. However, children viewed high-wealth groups as motivated in part by selfishness and low-wealth groups as concerned in part with broader economic inequality. Finally, the higher children's family income, the more they expected group-serving tendencies. These findings revealed children's perceptions of exclusive preferences between economic groups, negative stereotypes about high-wealth children, and awareness of some of the constraints faced by low-wealth children.

Economic inequality impacts child well-being (Duncan, Magnuson, & Votruba-Drzal, 2015). As well, recent research indicates that economic status is salient and meaningful to children's peer interactions (Shutts, Brey, Dornbusch, Slywotzky, & Olson, 2016). Although much important research has focused on the first issue, less is known about children's perceptions of economic groups in daily life. Related research on the development of intergroup attitudes indicates that children hold expectations about others based on their group membership (Abrams & Rutland, 2008). In the context of economic groups, one such expectation may concern access to opportunities, as this is one marked difference in the lives of individuals from different economic backgrounds (Duncan et al., 2015). This study examined middle- to upper-middle-income children's expectations regarding groups of individuals from both high- and low-wealth

backgrounds in a context of limited access to opportunities.

Children's expectations in this context have implications not only for peer interactions in childhood but potentially for the continued economic stratification of many societies. By adulthood, economic groups are viewed as distinct, rooted in material inequalities (i.e., wealth, income), and carrying implications for social relations between groups (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012). Recent studies indicate that children, too, view economic groups as distinct and relevant for social relations. Less is known, however, about the content of these perceptions, or what children expect in terms of relations between economic groups. In order to address this question, this study examined whether children expected groups of peers from high- and low-wealth backgrounds to seek access to an opportunity for their group or prefer another (potentially more fair) approach and whether these expectations differed in childhood versus adolescence. Further, we examined whether children reasoned about different motivations for a high- versus a low-wealth group in this context and how children's own economic background related to their expectations for groups' behavior and preferences.

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Children's Perceptions of Economic Groups

Children form attitudes about many social groups early in development. In regard to economic groups, young children identify individuals as "rich" or "poor" based on cues from their clothing and possessions (Chafel & Neitzel, 2005; Enesco & Navarro, 2003; Shutts et al., 2016). In middle childhood, children begin to define social groups in terms of their shared norms, traditions, and histories, in addition to their shared external characteristics (Abrams, Rutland, Pelletier, & Ferrell, 2009). In regard to economic groups, around 8–10 years of age children note that wealthier peers participate in after-school clubs and travel to summer camps or vacation destinations more often than less wealthy peers (Mistry, Brown, White, Chow, & Gillen-O'Neel, 2015). For older children and adolescents, sharing group preferences, activities, and norms is a central part of what it means to be a member of a social group (Mulvey & Killen, 2015; Mulvey, Palmer, & Abrams, 2016). Thus, there is evidence that children view high- and low-wealth groups as distinct, at least in appearance and behavior.

Little is known, however, about children's perceptions of the preferences, behaviors, or attitudes of high-wealth and low-wealth groups in a context of limited access to opportunities, which have the potential to provide a window into their developing understanding of how members of different economic groups may be expected to interact. This study examined perceptions of economic groups with a sample of children ages 8–14 years old, capturing a time in development when children are aware of their own and others' relative economic status (Goodman, Maxwell, Malspeis, & Adler, 2015; Goodman et al., 2001; Mistry et al., 2015), and place increasing importance on social group identity when evaluating others (Abrams & Rutland, 2008). By 8 years of age, children are also able to distinguish their expectations for what groups will do from their thoughts about what they themselves would do in contexts involving resource allocation (Cooley & Killen, 2015; DeJesus, Rhodes, & Kinzler, 2014; Mulvey, Hitti, Rutland, Abrams, & Killen, 2014). By focusing on children ages 8–14 years, we were able to examine how expectations about groups' preferences regarding access to opportunities might differ for high-wealth versus low-wealth groups, in late childhood versus early adolescence, and as a function of participants' own economic background.

One expectation that children have about many social groups is that their members will behave in

ways that benefit their own group over other groups. Consistent with the research outlined above, these perceptions emerge most clearly in middle childhood and early adolescence, a time when children gain increasing experience with an ever-widening range of social groups and increasing capacity for complex social perspective taking (Abrams, Van de Vyver, Pelletier, & Cameron, 2015; Abrams et al., 2009; Nesdale, 2013). For example, although they themselves often prefer equality, under some circumstances older children expect others to share more resources with their friend groups than with people who are not members of those groups (Cooley & Killen, 2015; DeJesus et al., 2014; Mulvey et al., 2014). Likewise, although they themselves aim to reduce partiality in many interactions, older children infer that preferential treatment from one person to another is an indicator of friendship (Lieberman & Shaw, 2017; Mills & Grant, 2009) and expect others to behave prosocially toward in-group members rather than out-group members (Rhodes, 2012).

In regard to economic groups, expectations for own-group benefitting preferences like these could be especially harmful. Individuals from high- and low-wealth backgrounds experience differential access to opportunities, and differential access to opportunities exacerbates existing economic inequalities (Ridgeway & Fisk, 2012; Stephens, Markus, & Phillips, 2014). Although children are often motivated to correct disparities (Li, Spitzer, & Olson, 2014; Rizzo & Killen, 2016), they may not expect groups to share this interest in ensuring fair access to opportunities. Accordingly, this study examined whether children expected groups of same-aged peers from high- and low-wealth backgrounds to want to benefit their group in a context of limited access to opportunities, even when this would mean no access for members of another economic group. Furthermore, we examined how these expectations might differ (cross-sectionally) in middle childhood and early adolescence.

Children's Economic Background

In this study, we sampled participants from middle- to upper-middle-income backgrounds relative to their regional communities and tested whether children's expectations for groups' preferences differed as a function of family income. Children whose families are higher on the economic spectrum often personally experience greater access to opportunities (Duncan et al., 2015). These experiences may impact their expectations for groups'

behavior or preferences. For example, there is evidence that higher income adults perceive higher levels of personal control and choice concerning their own life outcomes than do lower income adults (Kraus, Piff, & Keltner, 2009; Stephens, Markus, & Townsend, 2007). Furthermore, some studies indicate that, relative to lower income adults, higher income adults feel more deserving, are more accepting of greed as a trait in others, and behave more selfishly when determining how resources should be distributed (Kraus et al., 2012; Piff, 2014).

Importantly, it is not yet known whether children from higher income backgrounds also hold these attitudes. Research on relations between family economic status and children's prosocial behavior, for example, has revealed both negative (Chen, Zhu, & Chen, 2013; Miller, Kahle, & Hastings, 2015) and positive (Benenson, Pascoe, & Radmore, 2007; Safra et al., 2016) relations. However, exposure to norms encouraging the promotion of one's own interests may make higher income children more likely to expect that groups (of any economic background) would try to gain access to opportunities when they have the chance. In experimental contexts where norms are manipulated, for example, children exposed to negative messages about intergroup relations are less helpful toward out-group members (McGuire, Rutland, & Nesdale, 2015; Sierksma, Thijs, & Verkuyten, 2014).

Thus, the exact role of children's own economic status in their expectations about how economic groups would prefer opportunities to be distributed remains an open question. However, for this first study on the topic, we recruited participants who were likely to have personal access to opportunities like the one presented in the study (a special summer camp at a zoo). We then examined relations between family income and children's expectations for own-group benefitting preferences in high- and low-wealth groups.

Stereotypes About Economic Groups

Notably, children's expectations about others may differ based on the economic status (high wealth vs. low wealth) of the target group, reflecting stereotypes about behavior and preferences. Previous research on children's stereotypes about economic groups has primarily focused on assumptions about competence. This work has revealed that children often infer that individuals from high-wealth backgrounds are hardworking, intelligent, and responsible, in contrast to individuals from low-wealth backgrounds who are assumed to lack

these qualities (Mistry et al., 2015; Roussos & Dunham, 2016; Shutts et al., 2016; Sigelman, 2012; Woods, Kurtz-Costes, & Rowley, 2005). However, in a context of limited access to opportunities, other stereotypes may apply.

Specifically, when considering what groups might do when there are not enough opportunities to go around, children may view high-wealth peers as more selfish or entitled in seeking more opportunities for their own group. Supporting this point, adults perceive the wealthy to be, on average, less warm (i.e., more competitive and less friendly) than other social groups (Cuddy, Fiske, & Glick, 2007; Durante, Tablante, & Fiske, 2017; Fiske, Cuddy, Glick, & Xu, 2002). Little previous developmental research has examined children's warmth-related stereotypes about wealth. Some early studies in this area, however, indicate that high-wealth children are sometimes viewed by their peers as likely to tease or demean others, whereas low-wealth children are viewed as kinder or more inclusive (Baldus & Tribe, 1978; Skafte, 1989; Stendler, 1949; Weinger, 1998).

A context of limited access to opportunities may invoke similar attitudes toward high-wealth groups as entitled or selfish and low-wealth groups as generous or egalitarian. Notably, however, findings in this area are not uniform; some recent studies have identified contexts in which children view high-wealth individuals as "nicer" than low-wealth individuals (Ahl & Dunham, 2017; Roussos & Dunham, 2016). Thus, this study examined whether children perceived different (potentially stereotypic) motivations for a high-wealth versus a low-wealth group in this context of limited access to opportunities.

Current Study: Theoretical Model and Hypotheses

In their everyday lives, children must make numerous inferences and predictions about how members of different social groups will behave. This study examined children's expectations regarding the preferences of a group of high-wealth peers and a group of low-wealth peers in a context of limited access to opportunities. Specifically, we asked participants (ages 8–14 years) to provide their expectations about how a high- and a low-wealth group would make decisions about access to a summer camp and give their reasoning for their expectations. The options were: (a) admit an *equal* number of children from both economic groups, (b) admit children without regard to economic background (*impartial*), (c) admit only children from *low-wealth* families, and (d) admit only children from *high-wealth* families.

By middle childhood children recognize the distinction between equality and impartiality (Grocke, Rossano, & Tomasello, 2015; Shaw & Olson, 2014). An expectation for the first option (equal) would indicate that children expect groups to ensure that half of the camp spaces go to the low-wealth group and half go to the high-wealth group. An expectation for the second option (impartial) would indicate that children expect groups to determine access without regard to economic status. For the third and fourth options, an expectation for this preference from the corresponding group (e.g., an expectation that the high-wealth group would prefer that the camp only admit high-wealth children) would constitute a group-serving preference.

Theoretical Model

We used the social reasoning developmental (SRD) model (Killen, Elenbaas, & Rutland, 2015; Rutland, Killen, & Abrams, 2010) to frame this study. The SRD model integrates the social domain theory perspective on moral development (Smetana, Jambon, & Ball, 2014; Turiel, 2006) with developmental social identity theories (Nesdale, 2004; Verkuyten, 2007) and theories of group dynamics in childhood (Abrams & Rutland, 2008). This model proposes that, when children reason about social interactions, they consider multiple moral and social group factors, weighing their concerns for fairness with their developing knowledge about how groups function. In the current study, we applied this proposition to the context of economic groups. Children's expectations for economic groups' preferences regarding access to opportunities provide insight into their developing understanding of what the members of these groups are like and how high- and low-wealth groups interact.

Furthermore, we drew on research from the SRD perspective highlighting how children distinguish their own view on what is fair from their predictions about what groups prefer. No prior research has examined this distinction in the context of economic groups. However, in the context of peer groups, older children and adolescents are able to recognize that, whereas they may personally prefer equality, groups often want more resources for themselves (Cooley & Killen, 2015; Killen, Rutland, Abrams, Mulvey, & Hitti, 2013; Mulvey et al., 2014). For example, one recent study examined children's perceptions of a member of their after-school club who wanted to divide funds from the Student Council equally between their club and another club, when the rest of the club wanted more money

for their group (Killen et al., 2013; Mulvey et al., 2014). Findings revealed that both 9- and 13-year-olds personally supported this individual but expected that the club would view them negatively. Furthermore, 13-year-olds thought the club would view the individual more negatively than did 9-year-olds and explained their expectations in terms of the group's dissatisfaction with an individual whose actions undermined a prevailing norm that benefitted them.

In the context of economic groups, however, several other variables may contribute to children's inferences, such as concerns about differential access to opportunities, stereotypes about high- and low-wealth groups, and children's own economic background (as outlined above). Thus, extending and expanding on work in this area, the current study examined children's expectations for economic groups' preferences in a context of limited access to opportunities. In addition, we investigated how these expectations might differ in middle childhood versus early adolescence, whether children might perceive different (potentially stereotypic) motives for high- and low-wealth groups, and what role participants' own economic background would play in their expectations in this context.

Hypotheses

This study had three primary aims and hypotheses as outlined below.

Hypothesis 1: Our first aim was to determine whether children would expect the economic groups (high wealth and low wealth) to seek access to an opportunity for their group or prefer another (potentially more fair) approach like equality or an impartial choice. We predicted that, between middle childhood and early adolescence, children would increasingly expect both the high- and low-wealth groups to prefer access to the opportunity for their group over other approaches. Although no research to date has examined these preferences in the context of economic groups, some previous work indicates that adolescents recognize that peer groups sometimes behave in ways that benefit their group over other groups.

Hypothesis 2: Our second aim was to examine whether children would reason about different underlying motivations for high- versus low-wealth groups in this context. We predicted that children would be more likely to reference stereotypic attributes like selfishness when explaining the high-wealth group's preferences than when explaining the low-wealth group's preferences. Previous work

has largely focused on children's wealth-related stereotypes about competence (e.g., intelligence). In this context of limited access to an opportunity, however, different stereotypes (i.e., selfishness) are more likely to apply. By contrast, we predicted that children would be more likely to reference concerns about broader economic inequality when explaining the low-wealth group's preferences than when explaining the high-wealth group's preferences, as low-wealth individuals are, on average, more likely to experience restricted access to special opportunities.

Hypothesis 3: Our third aim was to determine whether and in what way children's own economic background was related to their expectations for high- and low-wealth groups' preferences. We found it most likely that expectations for own-group benefitting preferences would be positively related to family income in this sample of middle- to upper-middle-income children. The exact role of children's family income on their expectations about how high- and low-wealth groups would prefer opportunities to be distributed, however, was an open question for this study.

Method

Participants

Participants were $N = 267$ children ages 8–14 years ($M = 11.61$ years, $SD = 1.88$ years) attending third through eighth grade in nine racially and ethnically diverse majority middle- to upper-middle-income private schools (religious and nonsectarian) in the suburbs of a large city in the mid-Atlantic region of the United States. Sample size was determined using a priori power analyses for the most complex models reported in this article, which indicated that, expecting small to medium effects, a minimum of approximately 233 participants would be necessary to test our hypotheses. The sample was relatively evenly distributed across the six grade levels: 21% ($n = 55$) were in third grade, 15% ($n = 39$) were in fourth grade, 15% ($n = 41$) were in fifth grade, 16% ($n = 43$) were in sixth grade, 15% ($n = 41$) were in seventh grade, and 18% ($n = 48$) were in eighth grade. The sample was also relatively evenly distributed across participating schools.

Demographic information (participant age, gender, race or ethnicity, and approximate annual family income) was obtained by parent report (on the consent form). The sample was balanced by gender: 51% ($n = 135$) were boys and 49% ($n = 132$) were girls. Closely reflecting the geographic area where

the data were collected, the sample was 43% ($n = 115$) European American, 23% ($n = 61$) African American, 9% ($n = 23$) Asian American, 8% ($n = 21$) Latinx (not in combination with any other racial group), 15% ($n = 41$) multiracial or multiethnic, and 2% ($n = 6$) declined to provide race or ethnicity information. The approximate annual family income for the sample was as follows: 12% ($n = 31$) \$30–60K, 8% ($n = 22$) \$60–90K, 17% ($n = 44$) \$90–120K, 13% ($n = 35$) \$120–150K, 15% ($n = 41$) \$150–180K, and 35% ($n = 94$) > \$180K. Relative to the rest of the United States, the area where these data were collected has a high median annual household income (\$99,435 for this area vs. a national median of \$55,775; US Census Bureau QuickFacts, 2015). Thus, we refer to these participants as coming from middle- to upper-middle-income backgrounds, on average, relative to their regional community. These data were collected in April and May of 2016.

Procedure

Written parental consent and children's verbal assent were obtained for all participants. The average consent response rate across schools was approximately 70%. During the assent process participants were told that there were no "right or wrong" answers, they could skip questions they did not want to answer or stop participating at any time, and their responses were confidential and anonymous. Participants completed all measures independently, in a communal space at their school (e.g., library), supervised by trained research assistants. All stimuli and measures were presented on paper survey forms. The entire survey session took approximately 20 min.

Measures

First, the two economic groups (high wealth and low wealth) were introduced on the paper survey form. Similar to other research examining intergroup attitudes with older children and early adolescents (see Killen, Elenbaas, Rizzo, & Rutland, 2016 for a review), the two economic groups were depicted visually and described in writing. The written description was:

Here are some kids who all live in the same city. Some of these kids' families have a lot of money. They live in houses like this and ride in cars like this [images]. And some of these kids' families have a little money. They live in houses like this and ride in cars like this [images].

Images of children (10 in the high-wealth group and 10 in the low-wealth group) were silhouette outlines pretested to reveal no implications about race or ethnicity. References to houses and cars appear in children's own explanations of economic status beginning in the early elementary years (e.g., Shutts et al., 2016; Sigelman, 2012). The economic groups were introduced side by side on the same page of the paper survey form. Arrows were used in conjunction with the text and images were grouped together, in order to clearly delineate the high-wealth and low-wealth groups.

Next, the opportunity was introduced:

In this city, there is a zoo. Every summer the zoo organizes a special Zoo Summer Camp! Kids can go to Zoo Summer Camp for a whole week for free. Zoo Summer Camp is a special opportunity. It is really fun, and it is also a really important opportunity for kids to learn a lot.

Then, the vignette revealed that there were more children who wanted to attend the camp this summer than there were spaces available:

This year, there are 20 new kids who want to go to Zoo Summer Camp. But there are only 10 spaces! Here are 10 of the kids who want to go. They are from families with a little money [images]. And here are 10 of the kids who want to go. They are from families with a lot of money [images].

Expectations for Economic Groups' Preferences

Participants were then asked to provide their expectations for what the two economic groups would want the camp to do, individually for each group: "Here are the 10 kids from families with [a little/a lot of] money [images]. What would these kids want the Zoo Summer Camp to do?" Half of the sample gave their expectations for the high-wealth group first and half of the sample gave their expectations for the low-wealth group first. Each economic group appeared in a separate box on the same page of the paper survey form.

The options for both groups were the same and appeared in a fixed order: (a) *equal*: "Give five spaces to new kids from families that have a lot of money and five spaces to new kids from families that have a little money"; (b) *impartial*: "Put all the new kids' names in a bag and pull out 10 names without looking and give the 10 spaces to those kids"; (c) *own group*: "Give all 10 spaces to new kids from families that have [a little/a lot of]

money?"; and (d) *other group*: "Give all 10 spaces to new kids from families that have a [a lot of/a little] money?" The wording of the *own group* and *other group* options differed (as indicated) when children were giving their expectations for the high-wealth group or the low-wealth group. In both cases participants circled the option that they thought each group would prefer and gave their reasoning for their decisions in an open-ended format: "Please explain why they would want the Zoo Summer Camp to do that."

Reasoning response coding. Participants' reasoning for both expectations questions was coded for analyses into one of five conceptual categories expected based on previous research. Pilot testing with a small ($n = 20$) separate sample of 8- to 14-year-olds confirmed the presence of these five types of reasoning in children's responses. The categories were: (a) *benefitting own group*, (b) *ensuring equal representation*, (c) *group stereotypes*, (d) *addressing economic inequality*, and (e) *avoiding biased decisions*. Table 1 provides category definitions and examples of reasoning fitting each category. All examples of reasoning reported in this article are direct quotes from participants. Responses that did not fit into any of the five conceptual categories (approximately 17%–18% of participant responses, e.g., "Just because") were coded as "other." The coding of responses was conducted by two coders blind to the hypotheses of the study. Interrater reliability was determined using a subset of 30% of the data ($n = 80$ participant responses); Cohen's $\kappa = .89$ for interrater reliability.

Analysis Plan

All analyses were conducted in SPSS 24 (IBM Corporation, New York, United States). To test our hypotheses about children's expectations for the two economic groups' preferences, we first ran two separate multinomial logistic regression models (one examining expectations for the high-wealth group and one examining expectations for the low-wealth group). Both models tested the effects of age and family income on expectations (equal, impartial, own group, and other group).

Then, to take advantage of our within-subjects design, we used a generalized linear mixed model, with binomial probability distribution and a logit link function, to examine children's expectations for own-group benefitting preferences (i.e., the own group strategy) over any of the other options. Thus, the dependent variable was recoded such that 1 = *own group* and 0 = *any other choice*. With this

Table 1
Reasoning Response Coding Scheme

Conceptual category	Definition	Examples
Benefitting own group	References to groups' desire for their own economic group to benefit from greater access	"They would want just them and their friends to go" "Then the kids with little money will get in 100% for sure"
Ensuring equal representation	References to ensuring that both groups are equally represented	"Then it would be even between the rich and the poor" "They would say half and half from both groups"
Group stereotypes	References to stereotypes about children of high- or low-wealth backgrounds	"Kids with a lot of money are greedy and only care about themselves" "Growing up in a family that's poor, they would think of others"
Addressing economic inequality	References to economic inequality in society and the implications for access to opportunities	"Families with little money cannot afford many summer camps, but rich ones can have almost any choice they want" "The rich kids have the money to do other stuff"
Avoiding biased decisions	References to avoiding bias in the process by not taking group membership into account	"The random chance would be fair for both groups" "They don't want the camp to pick and choose people because of their money"

model we were able to directly compare whether children's expectations differed for the high-wealth versus the low-wealth group (a within-subjects variable called *economic group*, below), and whether these differences might further depend on *age* and *family income* (between-subjects variables).

To test our hypotheses about children's reasoning for their expectations, we used chi-square and correlation analyses.

Results

Expectations for Economic Groups' Preferences

High-Wealth Group

Overall, 55% ($n = 145$) of participants expected the high-wealth group to prefer the approach that benefitted their group alone, 26% ($n = 69$) expected a preference for equality, 11% ($n = 28$) expected a preference for impartiality, and 8% ($n = 23$) expected a preference for admitting the other group. The model was significant with the addition of the two predictors, $\chi^2(6, N = 260) = 28.39$, $p < .001$, Nagelkerke $R^2 = .11$. The effect for age was significant, $\chi^2(3, N = 260) = 27.50$, $p < .001$. Specifically, increasing age was associated with increasing expectations of the high-wealth group to want to admit their group alone over equality, $\beta = .41$, $\chi^2(1) = 21.43$, $p < .001$, $\text{Exp}(B) = 1.50$, 95% CI [1.26, 1.78], and over impartiality, $\beta = .35$, $\chi^2(1) = 8.84$, $p = .003$, $\text{Exp}(B) = 1.42$, 95% CI [1.13, 1.80]. There was no significant effect for family income, and no significant interaction for Family Income \times Age.

Low-Wealth Group

Overall, 56% ($n = 146$) of participants expected the low-wealth group to prefer the approach that benefitted their group alone, 32% ($n = 84$) expected a preference for equality, 10% ($n = 26$) expected a preference for impartiality, and 2% ($n = 7$) expected a preference for admitting the other group. The model was significant with the addition of the two predictors, $\chi^2(6, N = 259) = 32.63$, $p < .001$, Nagelkerke $R^2 = .13$. The effect for age was significant, $\chi^2(3, N = 259) = 28.09$, $p < .001$. Specifically, increasing age was associated with increasing expectations of the low-wealth group to want to admit their group alone over equality, $\beta = .40$, $\chi^2(1) = 23.47$, $p < .001$, $\text{Exp}(B) = 1.50$, 95% CI [1.27, 1.76], and over impartiality, $\beta = .31$, $\chi^2(1) = 6.44$, $p = .01$, $\text{Exp}(B) = 1.36$, 95% CI [1.07, 1.73]. There was no significant effect for family income, and no significant interaction for Family Income \times Age.

Together, these results provide support for Hypothesis 1: From middle childhood to early adolescence, children increasingly expected both economic groups to prefer access to the camp for their own group.

Expectations for Own-Group Benefit

Comparison of the Akaike's information criterion and Bayesian information criterion fit indices (both based on the -2 log pseudo likelihood) indicated that a model containing the predictors fit the data better than a null model. The effects for both age and family income were significant. Specifically,

increasing age was associated with increasing expectations for own-group benefitting preferences, $\beta = .35$, $t(265) = 6.57$, $p < .001$, $\text{Exp}(B) = 1.41$, 95% CI [1.27, 1.57]; see Figure 1. Furthermore, with increasing family income, participants were more likely to expect own-group benefitting preferences, $\beta = .13$, $t(265) = 2.44$, $p = .02$, $\text{Exp}(B) = 1.14$, 95% CI [1.03, 1.26], see Figure 2. There were no significant effects for economic group and no significant interactions, indicating that children's expectations did not differ significantly for the high-wealth versus the low-wealth group.

These results provided further support for Hypothesis 1: From middle childhood to early adolescence, children increasingly expected both economic groups to prefer access to the camp opportunity for their group. Furthermore, in regard to Hypothesis 3: The higher children's family income, the more they expected the economic groups to seek access for their group alone.

Reasoning About Expectations

Differences by Group Economic Status

First, we tested Hypothesis 2 by examining differences in children's reasoning as a function of economic group (high wealth or low wealth) using a McNemar's chi-square, $\chi^2(10, N = 193) = 28.15$,

$p = .002$ (see Figure 3). Children were more likely to reference addressing economic inequality in regard to the low-wealth group than the high-wealth group ($M_{LW} = .22$, $M_{HW} = .11$) and more likely to refer to stereotypes about the high-wealth group than stereotypes about the low-wealth group ($M_{HW} = .23$, $M_{LW} = .12$). Notably, the majority (98%) of stereotypes about the high-wealth group pertained to selfishness, greediness, and entitlement (e.g., "They have a lot of money and are probably selfish about it"), whereas the majority (92%) of stereotypes about the low-wealth group pertained to generosity, kindness, and compassion (e.g., "Growing up in a family that's poor, they tend to think of others"). We return to this point in the Discussion. References to benefitting one's own group ($M_{LW} = .32$, $M_{HW} = .36$), ensuring equal representation of both groups at the camp ($M_{LW} = .24$, $M_{HW} = .21$), and avoiding biased decision making ($M_{LW} = .10$, $M_{HW} = .08$) did not differ significantly within-subjects for the high-wealth versus the low-wealth groups.

Thus, in regard to Hypothesis 2: Although children expected both groups to seek access for their group, they also viewed the high-wealth group as motivated by stereotypic attributes (like selfishness), whereas the low-wealth group was also concerned with broader economic inequalities and gaining access to an opportunity that they may not often experience.

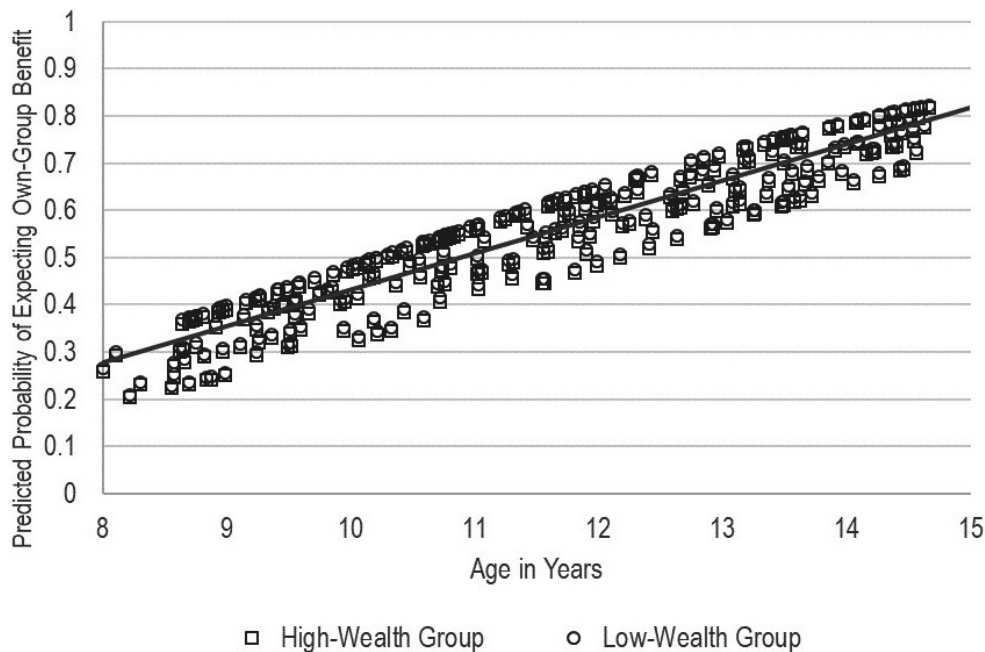


Figure 1. Children's expectations for own-group benefitting preferences for both economic groups increase in early adolescence versus middle childhood. Squares and circles indicate predicted probabilities for the high- and low-wealth groups, respectively.

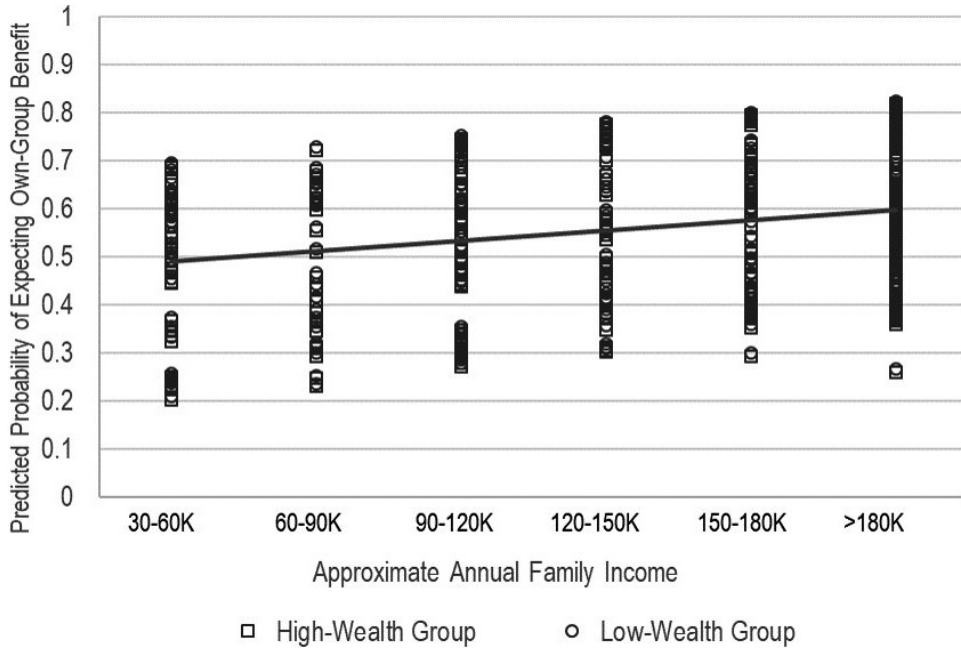


Figure 2. Children’s expectations for own-group benefitting preferences for both economic groups increase with increasing family income. Squares and circles indicate predicted probabilities for the high- and low-wealth groups, respectively.

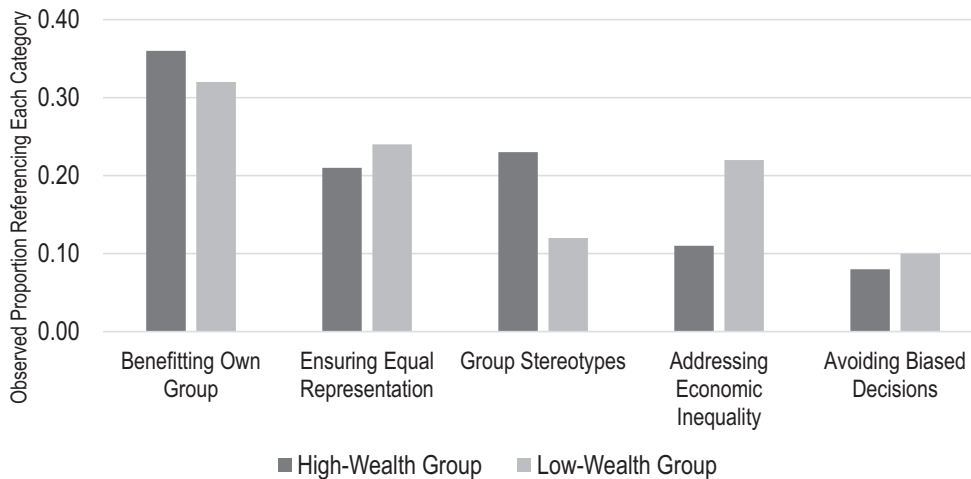


Figure 3. Children’s reasoning for their expectations differs for the high-wealth versus the low-wealth groups. Dark gray and light gray bars represent observed proportions referencing each conceptual category in regard to the high- and low-wealth groups, respectively.

To further explore this relation, we examined how reasoning in these five conceptual categories related to children’s expectations for a choice of equal, impartial, own group, or other group, separately for the high-wealth group and the low-wealth group. For the high-wealth group, $\chi^2(12, N = 222) = 324.08, p < .001$, and for the low-wealth group, $\chi^2(12, N = 218) = 309.59, p < .001$, children’s reasoning was related to their expectations. We used follow-up z tests with Bonferroni correction

for multiple comparisons to assess the nature of these relations (see Tables 2 and 3 for all proportions and indicators of significant differences).

The majority of children who reasoned that the groups would want their group to benefit from access to the camp also expected the groups to choose the “own group” option (82% for high-wealth group and 90% for the low-wealth group). Most relevant to Hypothesis 2, we found that 88% of children who referenced stereotypes about the

Table 2

Children's Expectations for What the High-Wealth Group Would Want the Camp to Do and Reasoning About Their Expectations

	Benefitting own group	Ensuring equal representation	Group stereotypes	Addressing economic inequality	Avoiding biased decisions
Equal	.07 _c	.96 _b	.02 _c	.44 _a	.05 _c
Impartial	.06 _a	.02 _a	.02 _a	.04 _a	.95 _b
Own group	.82 _b	.02 _a	.88 _b	.15 _a	0 _a
Other group	.05 _b	0 _b	.08 _b	.37 _a	0 _b
<i>n</i>	82	45	49	27	19

Note. Column proportions total to 1.0. Subscripts that do not match indicate proportions that differ from each other at $p < .05$.

Table 3

Children's Expectations for What the Low-Wealth Group Would Want the Camp to Do and Reasoning About Their Expectations

	Benefitting own group	Ensuring equal representation	Group stereotypes	Addressing economic inequality	Avoiding biased decisions
Equal	.08 _c	1.0 _b	.23 _{a,c}	.29 _a	0 _c
Impartial	.01 _a	0 _a	.04 _a	.02 _a	.96 _b
Own group	.90 _c	0 _b	.73 _{a,c}	.69 _a	0 _b
Other group	.01 _a	0 _a	0 _a	0 _a	.04 _a
<i>n</i>	67	51	26	51	23

Column proportions total to 1.0. Subscripts that do not match indicate proportions that differ from each other at $p < .05$.

high-wealth group expected this group to prefer the option that benefitted their own group (Table 2), and 69% of children who referenced addressing economic inequality in regard to the low-wealth group expected this group to prefer the option that benefitted their own group (Table 3). Thus, in addition to an interest in benefitting their own economic group, children also viewed the high-wealth group as motivated by stereotypic attributes like entitlement, whereas the low-wealth group was also concerned with broader economic inequalities.

Differences by Age

Next, we tested Hypothesis 1 by examining differences in children's reasoning for their expectations as a function of age. For reasoning about both the high-wealth and low-wealth groups, age was correlated with increasing references to stereotypes and benefitting one's own group, and decreasing references to ensuring equal representation (high-wealth group: stereotypes $r = .16$, $p = .02$, benefitting own group $r = .18$, $p = .009$, equal $r = -.18$, $p = .007$; low-wealth group: stereotypes $r = .19$, $p = .006$, benefitting own group $r = .17$, $p = .01$, equal $r = -.26$, $p < .001$). Age was also correlated with decreasing references to addressing economic inequality for the high-wealth group ($r = -.18$, $p = .006$) but not the low-wealth group ($r = .01$,

$p = .94$). References to avoiding biased decisions did not correlate significantly with age (high wealth: $r = -.07$, $p = .29$; low wealth: $r = -.09$, $p = .17$).

As reported above, between middle childhood and early adolescence, children increasingly expected both economic groups to prefer access to the camp for their group. Extending these findings, adolescents were less likely than children to reference equality, more likely to reference benefitting one's own group, and more likely to make stereotypic attributions about the members of economic groups. Furthermore, increasing age was associated with fewer references to broader economic inequality when children reasoned about the high-wealth group.

Differences by Family Income

Finally, we tested Hypothesis 3 by examining differences in children's reasoning for their expectations as a function family income. Family income was positively correlated with references to benefitting one's own group ($r = .14$, $p = .04$) and negatively correlated with references to avoiding biased decisions ($r = -.16$, $p = .02$) in regard to the low-wealth group. There were no significant correlations with family income and reasoning about the high-wealth group.

Discussion

Economic status is meaningful to children, and economic inequalities in access to opportunities are a part of children's daily lives. This study provided evidence for children's expectations regarding the preferences of high- and low-wealth groups in a context of limited access to opportunities. Building on the theoretical foundation of the SRD model (Killen et al., 2015; Rutland et al., 2010), this study revealed that perceptions of economic groups' preferences change between childhood and adolescence, differ as a function of children's own economic background and reflect different (sometimes stereotypical) assumptions about the motivations of high- and low-wealth groups.

Specifically, from middle childhood to early adolescence, children in this study increasingly expected both high- and low-wealth groups to prefer access to an opportunity for their group and were less likely to reason that either group would be concerned with equality. These findings accord with recent research from the SRD perspective, which highlights middle childhood and early adolescence as an important point at which children's increasing experience with social groups enables them to distinguish what is fair from what is expected in intergroup contexts (Abrams et al., 2009; Killen et al., 2013; Mulvey et al., 2014). Interestingly, children's expectations that these economic groups would seek to benefit their group is also consistent with related work indicating that older children often expect individuals to benefit themselves in contexts where resources are scarce. We return to this point as a future direction for this line of work.

A novel finding in this study was that children perceived different underlying interests for high-wealth versus low-wealth groups in this context. These differences were evident in children's reasoning about stereotypes (in regard to the high-wealth group) and concerns for broader economic inequality (in regard to the low-wealth group). Specifically, 23% of children referenced stereotypes about the high-wealth group, and the vast majority of these stereotypes pertained to selfishness, greediness, and entitlement (e.g., "They think because they're rich they can get what they want and that they deserve everything," "They take things for granted with their big ego"). By contrast, 12% of children referenced stereotypes about the low-wealth group, and these stereotypes predominantly pertained to kindness, generosity, and compassion (e.g., "Kids with little money are grateful for the things they have,"

"They're kind, and want to be with other people like them"). Notably, spontaneous references to stereotypes in this reasoning context were increasingly common in early adolescence.

With few exceptions, research on children's wealth-related stereotypes has focused on assumptions that high-wealth individuals are hardworking, intelligent, and responsible, and low-wealth individuals lack these qualities (Mistry et al., 2015; Roussos & Dunham, 2016; Shutts et al., 2016; Sigelman, 2012; Woods et al., 2005). This study revealed, however, that children hold very different stereotypes about high- and low-wealth groups in a context of limited access to opportunities. These stereotypes bear some similarities with those observed in related research with adults. For instance, in addition to perceiving wealthy individuals as competent (i.e., intelligent), adults perceive the wealthy as less warm (i.e., competitive; Durante et al., 2017). Furthermore, mixed or compensatory narratives about the poor that emphasize positive qualities (e.g., "poor but honest") are related to justification of status quo inequalities in adults (Kay & Jost, 2003; Lott, 2012). Thus, findings from the current study provide new insights into how children think about others, and their motivations, based on economic status.

In contrast to their reasoning about children from high-wealth backgrounds, 22% of participants referenced a concern for broader economic inequality when explaining the low-wealth group's preferences (e.g., "They don't have lots of money to go to camps and vacations"). Fewer participants (11%) reasoned that the high-wealth group would have these same concerns (e.g., "They can do other stuff, but the other kids don't have a lot of luxuries"). In fact, age was correlated with decreasing references to addressing economic inequality for the high-wealth group, suggesting that adolescents were even less likely than were children to think that the high-wealth group would take this factor into consideration. Notably, a desire to take economic inequality into account, when expressed by a low-wealth group, could result in a decision about access to opportunities that also serves the interests of the in-group. These motivations, however, are not one in the same, neither did participants perceive them to be exclusive to the low-wealth group. Taken together, participants reasoned that the two economic groups often had very different motives for preferring access to the camp opportunity for their own group.

Finally, the higher children's family income, the more they expected the members of both economic

groups to seek access to the opportunity for their group. There are several possible reasons for this relation. First, as noted above, approximately 1 in 5 children expressed negative stereotypes about the high-wealth children depicted in the study (e.g., entitled). It is possible that higher income children in the sample had heard such statements from their peers before and began to internalize some of these beliefs. Notably, in experimental contexts in which peer group norms are manipulated, children exposed to exclusive messages about intergroup relations are less inclusive, less helpful, and less generous toward out-group members (Abrams et al., 2015; McGuire et al., 2015; Nesdale & Lawson, 2011; Sierksma et al., 2014).

Another possibility is that the higher their family income, the more children may have perceived that they exercised personal choice in their own lives (see Kraus et al., 2009; Stephens et al., 2007 for related work with adults). Because they themselves may perceive more control over questions like what to do with their summer months, they may also be more likely to expect that groups (of any economic background) would try to gain access to opportunities like summer camps when they have the chance.

It is also the case that higher income children may be exposed to more messages from adults, suggesting that benefitting oneself at the expense of others is an acceptable or expected form of behavior (Kraus et al., 2012; Piff, 2014). There is some evidence that family income is negatively related to generosity in giving contexts (Chen et al., 2013; Miller et al., 2015). However, the literature in this area is very recent. Other studies have found the inverse pattern of results (Benenson et al., 2007; Safra et al., 2016). The causes (and consequences) of socioeconomic differences in children's perceptions of exclusive relations between high- and low-wealth groups are fruitful areas for future research. Likewise, more research is needed to disentangle the effects of parental messages about generosity or benefitting oneself on children's expectations for economic groups.

Limitations and Future Directions

Findings from this study suggest several possible avenues for future research on children's perceptions of economic groups and relations between them. First, most participants in the current study were from middle- or upper-middle-income backgrounds relative to their regional communities. Relative to the national average, most participants would be considered upper-middle or higher

income. The perspectives of children from lower income backgrounds are crucial for understanding whether the perceptions revealed in this study are shared by children across the economic spectrum. Our finding that the higher participants' family income, the more they expected exclusive preferences between economic groups, suggests that these perceptions are not uniform for all children. For this first study on the topic, we focused on a sample of children who were most likely to personally have access to special opportunities. However, it is important for future research to include children from lower income backgrounds. The perceptions of children who are less likely to personally benefit from access to special opportunities would reveal novel information regarding whether a lack of access to resources bears on one's expectations for how groups respond to inequality. Furthermore, future research should examine potential mechanisms for socioeconomic variability in children's perceptions of economic groups. Three candidate mediators include perceptions of hostile attitudes from peers, perceptions of one's own control over life choices, and inferences based on the behavior of adults (as outlined above).

Additionally, children in this study attended schools with peers from middle- to upper-middle-income backgrounds and lived in a socioeconomically diverse area. Numerous studies have shown that children's attitudes about various social groups are affected by the nature of the personal contact that they have with individuals of different backgrounds (see Hayward, Tropp, Hornsey, & Barlow, 2017). Future research examining children's perceptions of economic groups may find variability as a function of children's economic environment.

Likewise, although this study included a sample of children from several racial and ethnic backgrounds, future research could benefit from more closely examining the perceptions of specific populations. For example, whereas economic inequality affects all children, children of racial and ethnic minority backgrounds are disproportionately impacted (Saegert et al., 2007). Future research on children's perceptions of the relations between economic groups could examine whether perceptions differ as a function of participants' race or ethnicity, or other relevant factors like gender, generational status, etc.

There are many ways to define economic groups and many ways to measure participant economic status (see Diemer, Mistry, Wadsworth, López, & Reimers, 2013). The economic groups depicted in this study were defined as high wealth and low

wealth (i.e., having “a lot of” or “a little” money), and depicted using visual cues (i.e., houses, cars) that signal wealth status to children (e.g., Shutts et al., 2016; Sigelman, 2012). Participant economic status, however, was measured in terms of approximate annual family income. This approach was consistent with many other studies in this area and appropriate for the aims of the current investigation. However, it is important to note that other valid possibilities exist, and future research may benefit from a multifaceted approach to representing both target and participant economic status. For example, family wealth (net worth, or assets less debts) and family income (annual earnings) have different effects on developmental outcomes (Shonkoff & Phillips, 2000). Future research on children’s perceptions of economic groups may benefit from examining the role of family wealth as well as family income. Additionally, information about education (i.e., the educational attainment of the members of the economic groups represented or the educational attainment of participants’ parents) may be relevant.

Furthermore, by 8–10 years of age children are aware of their own families’ economic status relative to other families in their neighborhood or school (Goodman et al., 2001, 2015; Mistry et al., 2015). Measuring children’s perceptions of their own economic status directly raises the possibility of testing for in-group biases in children’s expectations about economic groups. Many years of research drawing on developmental social identity theories (Abrams & Rutland, 2008; Nesdale, 2004; Verkuyten, 2007) indicates that children are motivated to view their own social groups in a positive light. In minimal in-group contexts, for example, children remember (Dunham, Baron, & Carey, 2011), expect (Baron & Dunham, 2015; Dunham & Emory, 2014), and actively seek out (Over, Eggleston, Bell, & Dunham, 2017) positive information about their social in-groups. When deciding whether to help others, children are more responsive to the needs of members of their social in-groups than members of social out-groups (Abrams et al., 2015; Sierksma, Thijs, & Verkuyten, 2015; Weller & Lagattuta, 2014). Interestingly, the current study found positive stereotypes about a low-wealth group and negative stereotypes about a high-wealth group with a sample of middle- to upper-middle-income participants. This suggests a need for further research to assess the effects of in-group/out-group dynamics and other intergroup processes on children’s perceptions of economic groups, with participants from an even greater

range of economic backgrounds than was tested in the present study.

Furthermore, subjective experiences of one’s economic status in adolescence, including perceptions of relative placement on an economic scale or worries about financial difficulties, predict socioemotional outcomes (e.g., anxiety, depressive symptoms) over and above the direct effects of indices like parental income and education (Adler, Epel, Castellazzo, & Ickovics, 2000; Mistry, Benner, Tan, & Kim, 2009; Singh-Manoux, Marmot, & Adler, 2005). Similar effects may emerge for the relative influence of subjective and objective economic status on children’s attitudes toward high- and low-wealth groups. More research is needed in order to thoroughly assess the relations between children’s perceived economic identity and attitudes toward high- and low-wealth groups. Additionally, longitudinal studies are needed in order to better understand when children’s perceptions of economic groups first develop and how the influence of variables like family economic status and environmental socioeconomic diversity change children’s perceptions of their own and others’ economic status in childhood versus adolescence.

It would be fruitful to more closely examine the distinction between children’s expectations that economic groups will favor their own *group* versus their expectations that individuals or groups (of any composition) will favor *themselves*. Similar to other research from the SRD perspective, this study asked children to give their expectations for what economic groups would want the Zoo Summer Camp to do when the groups had a personal stake in the decision (i.e., stood to gain admission to the camp; Cooley & Killen, 2015; Killen et al., 2013; Mulvey et al., 2014). One novel finding was that, from middle childhood to early adolescence, children increasingly expected both high- and low-wealth groups to prefer access to the Zoo Camp opportunity for their group (over other options like equality). It is possible, however, that children’s expectations for own-group benefitting preferences may have reflected a mix of thinking about what these economic groups (in particular) would want and thinking about how others (in general) often prefer to benefit themselves.

Thus, children’s expectations for economic groups’ behavior in a context of limited access to opportunities may differ when these groups stand to personally gain access versus when they do not. One way to test this question directly would be to examine children’s expectations for what third-party high- and low-wealth individuals or groups

(who would not gain admission to the camp themselves) would want the Zoo Summer Camp to do in regard to admitting other high- or low-wealth individuals or groups (see DeJesus et al., 2014). This approach would provide additional evidence for whether children expect group-serving preferences independent of self-serving preferences.

Another novel finding from the current study was that children were more likely to reference stereotypes about greediness and selfishness in regard to the high-wealth group and more likely to reference concerns about economic inequality in regard to the low-wealth group. To disentangle the possible effects of reasoning about individuals versus groups, future research could examine the extent to which children consider stereotypic traits like selfishness as well as concerns about inequality in society when making predictions about a third-party individual who shares a group membership (high or low wealth) with the potential recipients of a special opportunity but does not stand to personally benefit from increased access to opportunities.

This direction for research may be especially important for understanding the perspectives of higher income children. This study revealed that the higher children's family income, the more they expected economic groups to seek access to the camp opportunity for their group. As outlined above, one possibility is that higher income children may be exposed to more messages from adults suggesting that benefitting oneself at the expense of others is acceptable or expected (Kraus et al., 2012; Piff, 2014). Determining the nature and frequency of parental messages about the acceptability of benefitting oneself versus the acceptability of benefitting one's economic group would shed light on the role of parental input. Importantly, children actively interpret environmental messages about many social groups. Likewise, the interpretation and integration of parental messages about economic groups may be especially of interest in adolescence, as children are increasingly aware of how their family economic background compares to that of others in the community (Goodman et al., 2015) and work toward more autonomous decision making (Smetana, 2011). Thus, these next steps should carefully assess not only what children and adolescents (perhaps particularly those of higher income backgrounds) hear from their parents on this issue but how they interpret and apply this information when reasoning about economic groups in daily life.

Additionally, it is possible that presenting high- and low-wealth groups rather than single high- and

low-wealth individuals in the current study may have made economic stereotypes more salient to children, potentially revealing harsher stereotypes about the wealthy than children may hold for single individuals from high-wealth backgrounds. Early studies in this area indicate that children sometimes view high-wealth peers as likely to tease or demean others (Baldus & Tribe, 1978; Skafta, 1989; Weinger, 1998). However, some recent work suggests the opposite, indicating that children view high-wealth individuals as "nicer" or more likely to share than low-wealth individuals (Ahl & Dunham, 2017; Roussos & Dunham, 2016). Furthermore, recent studies with adults suggest that perceptions of the wealthy are more stable (i.e., competent but not warm) than perceptions of the poor (i.e., sometimes warm but not competent, sometimes equally warm and competent; Durante et al., 2017). Whereas the current study makes a contribution to this ongoing area of research, more research is needed in order to determine the exact circumstances under which children exhibit positive and negative stereotypes about high- and low-wealth groups. The range of stereotypes reflected in the literature to date, however, points to important contextual variability in developing stereotypes about economic groups.

Furthermore, particularly for adolescents, awareness of peer norms around access to resources impact individual judgments and decisions about fair resource distribution (Abrams et al., 2015; McGuire et al., 2015; Nesdale & Lawson, 2011; Sierksma et al., 2014). Findings from this study indicated that children perceived exclusive norms between economic groups regarding access to opportunities. Examining how children's expectations regarding economic groups' behavior or preferences relate to their own decisions about access to opportunities for others of high- and low-wealth backgrounds warrants further inquiry.

Along these same lines, understanding children's perceptions of economic groups, and especially children's stereotypes about high- and low-wealth groups, may benefit from assessments of how such assumptions relate to children's decisions about peer relations and friendship in schools or other informal contexts. For example, older children and adolescents are selective in their friendship decisions, preferring to befriend peers of the same economic background (Kupersmidt, DeRosier, & Patterson, 1995; Papapolydorou, 2013) and teasing others based on their financial situation (Bradshaw, Jay, McNamara, Stevenson, & Muldoon, 2016; Bucchianeri, Eisenberg, & Neumark-Sztainer, 2013).

Some forms of interpersonal bullying have been shown to be related to group identity such as race (Mulvey et al., 2016) and may be related to identity based on wealth status. Children may expect that peers from different socioeconomic backgrounds may reject them, given that the current study revealed that children perceive exclusive norms between economic groups. Efforts to reduce children's stereotypes about high- or low-wealth peers would also benefit from addressing this perceived barrier to intergroup contact.

Finally, these results have implications for educators and policymakers interested in raising awareness of economic inequality in development. For instance, research with lower-income populations has revealed that adolescents and young adults who actively discuss current political and social issues with their peers and parents report a higher level of agency for addressing problems in their communities, including social inequality (Diemer, 2012; Watts & Flanagan, 2007). Although this study focused on children's perceptions of economic groups, rather than their actions to reduce inequality, the results do point to an emerging awareness of some of the constraints faced by low-wealth groups. This suggests that children from higher income backgrounds (or children across the economic spectrum) may also benefit from direct discussion of inequality in home and school contexts. Overall, these findings directly address recent calls in the literature for new research that reflects justice and equity issues in developmental science (Killen, Rutland, & Yip, 2016).

Economic inequality is a part of children's everyday peer interactions, yet little is known about children's perceptions of economic groups. The novel findings of this study revealed that (a) from middle childhood to early adolescence, children attributed increasingly exclusive preferences to high- and low-wealth groups in a context of limited access to opportunities; (b) children reasoned that high- and low-wealth groups had very different (sometimes stereotypic) underlying motivations for preferring access to the opportunity for their own economic group; and (c) the higher children's family income, the more children expected economic groups to display group-serving tendencies. Because economic status is salient and meaningful to children, it is important for future research to continue to examine how children perceive economic groups, and how this is related to their judgments about fair access to resources and opportunities.

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