The Development of Social Status Stereotypes

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Abstract

Tendencies to predict the status of others based on their race or gender are widespread and have far-reaching consequences on social cognition and behavior, but little work has examined the development of these beliefs. The present studies ($N = 314$) examined 3.5- to 6-year-old children to determine (a) the developmental trajectories of children's use of race and gender to predict social status in early childhood, and (b) how children’s beliefs about group-based social status affect their intergroup attitudes. Overall, children used both race and gender to predict social status, but use of these cues varied by participant age, gender, and race. In particular, older female participants ranked girls as lower in social status compared to that of younger female participants in this age range. Children’s gender-based social status beliefs did not relate to their social preferences. For race, viewing whites as higher in social status was related to greater preferences for Whites. This suggests that although children from a young age can use social group membership to make predictions about social status, these beliefs affect intergroup attitudes in a variety of ways.
The Development of Social Status Stereotypes

"Look like a girl, act like a lady, think like a man, work like a boss" (BiC Corporation, 2015). This shockingly sexist tagline from a recent advertisement by pen manufacturer BiC highlights how pervasive gender stereotypes are in society and how they influence the way we think about males and females. Specifically, these gender stereotypes set expectations for ways that males and females are supposed to think, look, and act.

Children develop gender stereotypes early and are aware of traditional gender roles from as young as 2 years of age (Cowan & Hoffman, 1986; Fagot, Leinbach, & O’Boyle, 1992; Weinraub, Clemens, Sachloff, Ethridge, Gracely, & Myers, 1984). This is unsurprising, as children receive ample environmental input about gender stereotypes from their earliest days. From infancy, parents sometimes treat boys and girls differently, dressing boys and girls in different clothes and holding different expectations for how each gender should behave (Thorne, 1993). Children’s story-books also contribute to their knowledge of societal sex roles; females are often depicted as fragile and incompetent, while males are adventurous and skilled (Bender Peterson & Lach, 1990; Kolbe & LaVoie, 1981; Weitzman, Eifler, Hokada, & Ross, 1972).

Maternal employment also influences the extent to which children endorse gender stereotypes. In particular, children with stay at home mothers hold more traditional beliefs about sex roles than children with an employed mother (Weinraub, Jaeger, & Hoffman, 1988). Although stereotypes about gender roles are apparent from a young age, little work has shown whether children are aware of one particularly important gender stereotype – the belief that males and females differ in their social status, in a way that gives males the privileged and higher status position.

The lack of studies investigating the links between gender and social status may be due to the fact that status is a complicated and multifaceted concept. Status can take the form of
physical dominance, being assessed by relative strength. It can also take the form of social dominance, such as having the ability to make decisions that affect both yourself as well as others. In addition, status can take the form of having access to resources, such as wealth and food, or the form of having prestige, such as having advanced degrees or holding jobs that are valued by society. Complicating the situation, status can take multiple forms at the same time (e.g., having a prestigious job might also come with the power to make decisions that affect others, and with a high salary). Thus, the type of status cue used to examine children’s endorsement of social status beliefs are important, as gender and race may be associated with different status cues. For example, gender may not be strongly associated with differences in resources (e.g., girls and boys are often seen living together and sharing the family’s wealth), but gender is more likely to be predictive of occupational prestige (e.g., all U.S. presidents have been men). On the other hand, race is more likely to be predictive of both access to resources (e.g., Black and White children often do not come from the same family or live in the same neighborhoods) and occupational prestige (e.g., Blacks are underrepresented in high status positions; Zweigenhaft & Domhoff, 1991).

Indeed, children as young as 4 years old associate Whites with wealth, believing that White people are more likely to live in nicer houses than are Black people (Olson, Shutts, Weisman, & Kinzler, 2012). In contrast, children were no more likely to associate males or females with wealth, perhaps unsurprising given the above explanation. Thus, even if children do associate gender and status, tasks based on wealth cues alone might not be ideal for detecting these links. Although children do not associate wealth with a specific gender, children do link both gender and race to stereotypes about occupational prestige. 6- to 8-year-old children believe that Whites and men are more likely than Blacks and women, respectively, to have jobs high in
occupational prestige (Bigler, Liben, Averhart, 2003; Liben, Bigler, & Krogh, 2001; Teig & Susskind, 2008). The lack of concordance between studies of stereotypes about occupational prestige and the studies assessing relations between social groups and wealth indicates that children are likely to link only certain components of status with certain social groups. Therefore, the types of cue to status given (e.g., physical dominance, social dominance, access to resources, or prestige) have to be considered carefully and in relation to the particular social group being asked about. For that reason, we created a new method for assessing whether children link specific social groups with status, in which the most relevant cues to status can be given.

Unfortunately, there are negative consequences to believing that some people are higher in status than others. In particular, children and adults show a preference to associate with higher status individuals, even when that means devaluing members of one’s own social group. For example, children prefer to befriend children associated with high status belongings, as opposed to children associated with low status belongings (Shutts, Brey, Dornbusch, Slywotzky, & Olson, 2016). In addition, not only do high status groups show strong in-group biases, low status groups (i.e. Black and Multiracial children) show both explicit and implicit out-group biases favoring Whites (Newheiser, Dunham, Merrill, Hoosain, & Olson, 2014). Thus, children are not only sensitive to the links between race and status, but these race-based social status beliefs affect social preferences in a way that disadvantages Blacks. Following this logic, we would expect that when children begin to endorse stereotypes linking gender with social status, they will also show preferences for the gender associated with high status (i.e. males); however, little work has been done to examine how the endorsement of gender social status stereotypes predicts children’s preferences for gender.
The present research examined three questions across two studies. The first study explored (a) whether children use race or gender to predict the social status of others, and (b) how participant characteristics (age, gender, and race) affect whether and how children use race or gender to predict social status. The second study examined the first two questions as well as (c) how children’s beliefs about group-based social status affect their intergroup attitudes. Based on previous studies, we expect that children will rank Whites and boys higher in status compared to Blacks and girls, respectively. In addition, we expect that children who use group membership to mark status will show greater preferences for the high status group.

**Study 1**

**Method**

**Participants.** 117 children (3.5 – 6.9 years old, \( M_{\text{age}} = 4.7 \), 58 female) were recruited from the Children’s Museum of Manhattan. For ease of analysis, children were split into a younger age group (3.5 – 4.9 year olds) and an older age group (5.0 – 6.9 years old). The sample consisted of 23.9% Caucasians, 11.1% African Americans, 15.4% Asian Americans, 10.3% Hispanic, 13.7% Mixed race, 4.3% other, 21.4% not reported.

**Materials.** We used child images taken from the Children Affective Facial Expression (CAFE) set (LoBue, 2014). In the CAFE images, children were 2 – 8 year olds who were photographed against a white background, wearing a white top, and making a neutral (non-emotional) expression (see LoBue & Thrasher, 2015).

To create the rope, we made a 13 in x 35 in wooden board with a white rope taped down the middle, as illustrated in Figure 1. Six equidistant pegs were placed beside the rope. Stimuli for the comprehension questions were images of a stick figure against a white background on 2.5
in by 3 in cards. All images used during this task were laminated with a hole on the top so that the participants could place the card onto the peg.

![Figure 1. The rope used during the rope game.]

**Procedure.** To assess whether children use social group membership as a marker of social status, we first had participants play the rope game. The experimenter first randomly assigned each participant to a resource \( (n = 58) \) or power \( (n = 59) \) condition, and then introduced the rope game by pointing out the vertical piece of rope on the wooden board. The experimenter told participants in the resources condition that, “kids at the top of the rope have lots of toys and new clothes” (while pointing at the top peg), and “kids at the bottom don't have any toys or new clothes” (while pointing at the bottom peg). Those in the power condition were told, “kids at the top of the rope always get to pick the games that people play during recess and the snacks that everyone eats at snack time,” and “kids at the bottom of the rope never get to pick the games that everyone plays at recess, and they never get to pick the snacks that everyone eats at snack time.” The experimenter then explained, “Kids don't just have to go at the top or the bottom. They can go on any of these places on the rope” (while pointing at each of the pegs in the middle, in ascending order). In order to determine whether the subjects understood what was just described
to them, the experimenter asked each participant three comprehension questions, one evaluating understanding for the top, one for the bottom, and another for anywhere in the middle.

After assessing comprehension, the experimenter presented one White, one Black, one Asian, and one Hispanic child in random order in a horizontal row at the base of the rope. Gender order was also counterbalanced, in that participants either saw the four female stimuli first or the four male stimuli first. All participants were asked to rank the other gender after completing the first set of stimuli. Participants were asked to put each child on the rope one at a time, moving from left to right. Each stimulus was removed from the rope before the participant was prompted to put the next stimulus on the rope; therefore, participants could place stimuli on the same peg. Through this task, we were able to determine whether children use race or gender as a physical marker of social status.

For the purposes of this study, we only looked at rankings for Black and White stimuli; Black and White stimuli were always presented first, in counterbalanced order, with Asian and Hispanic presented after.

Results

Preliminary analyses using a repeated measures Analysis of Variance (ANOVA) testing the main and interactive effects of target race (Black or White) and target gender (male or female) as within subjects factors and race stimuli presentation order, gender stimuli presentation order, age (Younger: 3.5 – 4-year-olds, Older: 5 – 6-year-olds), and condition (power or resources) as between subjects factors revealed no effects of gender order, $F(1,99) = 1.797, p = .183$, or race order, $F(1,99) = .400, p = .529$, or condition, $F(1,113) = .431, p = .513$, on children's placements of targets. Therefore, we collapsed across these variables (gender order,
race order, and condition) for subsequent analyses. We also used repeated measures ANOVA to analyze results across gender and race separately.

**Gender.** Inspection of Figure 2 illustrates that endorsement of social status stereotypes about gender were contingent on age and participant gender. We examined the main and interactive effects of target gender (boy or girl) as a within subject factor and participant age and participant gender (male and female) as between subjects factors. We found a marginal interaction between target gender and participant gender, $F(1,113) = 3.770, p = .055, \eta^2_p = .032$, which was subsumed in a 3-way age x participant gender x target gender interaction, $F(1,113) = 7.259, p = .008, \eta^2_p = .060$. Pairwise comparisons indicated that females decreased their ranking of girl stimuli across age, with older females ranking girl stimuli as lower in status relative to younger females (see Figure 2). No other pairwise comparisons were significant, suggesting that age did not have comparable effects for male stimuli in female participants, or for any stimuli in male participants. There were no other main or interactive effects, all $ps > .05$.

*Figure 2. (Study 1) Participants’ mean status ranking of gender stimuli. 6 represents highest status and 1 represents lowest status. Error bars signify 95% confidence intervals. Significant pairwise comparisons are indicated. (* $p < .1$)*
Race. Children in this sample did not use race as a physical marker of social status. We examined the main and interactive effects of target race (White or Black), participant age, and participant race (White vs. non-White) on participants’ rankings of White and Black stimuli and found no main effects or interactions, all ps > .05, suggesting that children did not endorse status stereotypes about race (MBlack = 3.721, 95% CI [3.33, 3.91], MWhite = 3.626, 95% CI [3.43, 4.01]).

Discussion

The findings from this first study indicate that, contrary to previous studies (Olson et al., 2012; Shutts et al. 2016), children did not use race as a cue to social status. This may be because we presented race and gender stimuli simultaneously, making the task more complicated because children have to consider two types of social categories at the same time. When race and gender are shown simultaneously, children at these ages both attend to and automatically encode gender over race, suggesting that at these ages gender is the more potent social category (Shutts, Roben, & Spelke, 2013; Weisman, Johnson, & Shutts, 2015). Thus, children’s predisposition to more strongly encode gender (over race) may explain why we found that children used gender, but not race, to mark status. Children’s general tendency to pay more attention to gender might have been overridden had we provided verbal social category labels (Waxman, 2010); however, we did not use either gender or racial category names when displaying the stimuli.

Thus, in the next study, we separated participants into either a gender or race condition. We also incorporated the wealth-matching task from Shutts et al. (2016) to determine whether our rope game task related to existing measures of status stereotype endorsement. In addition, we explored how use of gender or race as a marker of social status may predict social preferences.
Study 2

Method

Participants. 197 children (3.5 – 6 years old, $M_{age} = 4.5$, 115 females) were recruited from the Children’s Museum of Manhattan. For analysis, children were again split into a younger age group (3.5 - 4 year olds) and an older age group (5 – 6 years old). The sample consisted of 34% Caucasians, 14.2% African Americans, 11.2% Asian Americans, 13.2 & Hispanic, 12.2% Mixed race, 4% other, and 11.2% not reported. The race condition consisted of 82 participants, and the gender condition consisted of 115.

Materials. We used the same rope game images and board from Study 1. We also used the CAFE images for the wealth-matching task and implicit association test. Our house images for the wealth-matching task were obtained from Shutts et al., 2016. High status houses looked newly constructed, while low status houses looked slightly dilapidated, as illustrated in Figure 3.

![Figure 3. Stimuli used during the wealth-matching task (low status house on the left, high status house on the right).](image)

For the social preference tasks, stimuli were images of children collected from a public online repository of photographs (see Corbis.com). These stimuli were adapted from
Mandalaywala and Rhodes (2016), and consisted of 4 – 7-year-olds photographed across a variety of backgrounds while making pleasant facial expressions. All paired images were matched for general background characteristics (e.g., color of background, setting type), age, and emotional expression.

Stimuli varied by condition (race or gender), such that on critical trials, participants in the gender condition were shown stimuli of a boy and girl matched in race, and those in the race condition were shown stimuli of White and Black children. Stimuli in the race condition were gender matched to the participant (e.g. male participants saw only male stimuli, and female participants saw only female stimuli).

**Procedure.** All participants were randomly assigned to a gender or race condition and completed four tasks in the same order (the rope game, wealth-matching, social preference, and implicit association test).

**Assessing beliefs about social status.** The rope game from Study 1 was used again in Study 2, however, the experimenter presented two child stimuli, instead of four (as in Study 1). In Study 1, presentation order did not affect participant responses. Therefore, in Study 2, stimuli were always presented in the same order, with the higher-status child (White or male child) always placed on the left, and the lower-status child (Black or female child) always placed on the right. In Study 1, we also found no effect of condition (power vs. resources) therefore in Study 2 we combined both types of cues. Thus, when training the participant on how to use the rope, the experimenter explained, “Kids at the tope of the rope have lots of toys and new clothes, and they always get to pick the snacks that people eat at snack time,” and “Kids at the bottom of the rope don't have any toys or new clothes, and they never get to pick the snacks that people eat at snack time.”
We also used a wealth-matching task, adapted from Shutts et al. (2016), to assess beliefs about social status. In this task, the experimenter presented a low status house and a high status house and said, while pointing at each, “See this house? See this house?” The experimenter then simultaneously presented two child stimuli to the left of the house images, and then asked the participant to “put each kid in the house they live in.” Similar to the rope game, we used this task to determine whether children use race or gender as a physical marker of social status in accordance with societal stereotypes (i.e., placing the White child/boy in the nicer house, and the Black child/girl in more dilapidated house). Each participant completed two trials of the wealth-matching task. On each trial, participants received a score of 1 for a congruent response (e.g., putting the White child/boy in the high status house) and 0 for an incongruent response (e.g., putting the Black child/girl in the high status house). Participants who scored a sum of 2 across both trials were labeled “status-endorser” and those who scored a sum of 0 or 1 were labeled “status-non-endorser.” We evaluated the rope game and wealth matching tasks separately.

Assessing explicit and implicit prejudice. We assessed children’s preferences across two tasks. The first preference task was an explicit social judgment, adapted from Mandalaywala and Rhodes (2016). Participants were shown two child images at the same time (a White and Black child for the race condition, and a boy and girl for the gender condition), and asked three questions about whom they would rather engage in some activity with (e.g., “Who would you like to invite to your birthday party?”). A new stimulus pair was shown for each question. Participants were allowed to choose both or to choose neither. This task allowed us to determine explicit social preferences and whom the participant would prefer to associate with (i.e., Whites vs. Blacks, or boys vs. girls). Participants were given a score of 1 if they chose the high status
individual (White child/boy) or a score of 0 for any other response (e.g., choosing the low status individual (Black child/girl), choosing both, or choosing neither).

The second preference task assessed children’s implicit social preferences using an implicit association test (IAT). This task involved examining participants’ association for congruent (e.g. White child/boy with positive concepts and Black child/girl with negative concepts) and incongruent pairs (e.g. Black child/girl with positive concepts and White child/boy with negative concepts. Given the length of Study 2, we condensed the adult version of the IAT into four trials instead of seven (as in Qian et al., 2016). Participants completed a practice round before the critical trial for the congruent and incongruent pair. Because half of the children were excluded from analysis for making too many errors (for similar exclusion rates, see Mandalaywala, Ranger-Murdock, Amodio, & Rhodes, under review), not enough data were available to conduct meaningful analysis.

Results

Assessing social status beliefs. The first goal of Study 2 was to assess whether children endorse stereotypes linking gender and race to social status across either status measure (the rope game or the wealth matching task). As in Study 1, we used repeated measures ANOVA to examine whether participants used social group membership as a marker of status, and whether their use varied as a function of participant age, race, or gender.

Rope Game. Overall, participants placed the high status stimulus above the low status stimulus ($M_{\text{high status}} = 4.2, 95\% \text{ CI} [3.90, 4.47], M_{\text{low status}} = 3.2, 95\% \text{ CI} [2.91, 3.49]), F(1,193) = 17.047, p < .001, \eta^2_p = 0.81$. There were no other significant main effects or interactions, all $ps > .05$. 
Gender. Participants placed the boy stimulus higher on the rope than the girl stimulus ($M_{\text{boy}} = 4.35$, 95% CI [3.95, 4.75]; $M_{\text{girl}} = 3.21$, 95% CI [2.80, 3.61]), $F(1,80) = 8.179$, $p = .005$, $\eta^2_p = .093$. Although the 3-Way age x participant gender x target gender interaction was not significant, $F(1,111) = .511$, $p = .476$, pairwise comparisons revealed that older female participants ranked the girl stimulus lower in status compared to that of younger female participants, as illustrated in Figure 4. Male participants across both age groups placed the male stimulus above the female stimulus.

![Figure 4](image-url) (Study 2) Participants’ mean status ranking of gender stimuli. Significant pairwise comparisons are indicated. (* $p < .1$, ** $p < .05$)

Race. Participants placed the White stimulus higher on the rope than the Black stimulus, $F(1,80) = 8.179$, $p = .007$, $\eta^2_p = .093$ ($M_{\text{Black}} = 3.110$, 95% CI [3.691, 4.528]; $M_{\text{White}} = 4.110$, 95% CI [3.680, 3.539]). Age did not affect participants’ rankings of White and Black stimuli, $F(1,80) = 2.564$, $p = .113$. Although the 3-way interaction between age x participant race x target race was not significant, $F(1,66) = 1.37$, $p = .245$, pairwise comparisons revealed that non-White participants in both age groups ranked Whites above Blacks (see Figure 5). In contrast, while
younger White participants ranked the White stimulus above the Black stimulus, older participants ranked the White and Black stimulus equally.

*Figure 5.* Participants’ mean status rankings of race stimuli. Significant pairwise comparisons are indicated. (*p < .1, **p < .05)*

**Wealth Matching.** Results from the wealth-matching task indicated that determining the status of others based on wealth cues was dependent on condition. A binary logistic regression with the sum of the two wealth matching trials as the dependent variable, and age and condition as predictors showed a main effect of condition, \( \chi^2(1) = 16.834, p < .01 \), such that participants in the race condition were more likely to match the high status house (i.e., the nicer house) with the high status group (Whites). We did not observe a similar pattern in the gender condition (i.e., children were equally likely to match the boy and the girl with the nicer house). When using binary logistic regressions to look at each condition separately, we found no age, participant gender, and participant race effects, all \( ps > .05 \). In addition, no interaction effects were found, all \( ps > .05 \).
Relation of Rope Game to Wealth Matching. We compared the two status measures to determine whether they were correlated. Participants who placed the high status stimulus above the low status stimulus during the rope game were also more likely to match the high status house with the high status stimulus in the wealth-matching task, \( r(196) = .155, p = .030 \). This observation was supported by a Pearson’s correlation between rope difference score (high status stimulus ranking – low status stimulus ranking) and wealth matching sum.

Assessing the relationship between social status beliefs and social preference. To assess whether endorsing social status beliefs affects participants’ intergroup attitudes, we looked at the relationships between the explicit social preference measure (e.g., who would you like to invite to your birthday party?) and each status measure (the rope game and wealth matching task) separately. Means indicate probability of choosing White/boy stimuli as a social partner, with 1 indicating always choosing White/boy, and 0 indicating always choosing Black/girl.

Rope game. For these analyses, participants were categorized either as status endorsers (\( N = 112 \)) or status-non-endorserers (\( N = 85 \)). Participants who had a positive rope difference score were labeled status endorsers (i.e., they placed the White/Boy above Black/girl), and those who had a score of 0 or a negative difference score were labeled status-non-endorserers (i.e., they placed both stimuli on the same peg or placed the Black/Girl above White/Boy). We conducted an overall analysis across both conditions using a binomial logistic regression model with social preference score as the dependent variable and age, status endorsement, and condition as predictors.

Inspection of the means (see Table 1) indicate that there was an effect of age, status endorsement, and condition on participants’ social preference responses. Status endorsers, \( \chi^2(1) = 9.161, p = .002 \) and older participants, \( \chi^2(1) = 14.005, p < .001 \) preferred to associate with
high status individuals (e.g., Whites or Boys) as compared to status-non-endorser and younger participants, respectively. In addition, participants in the race condition preferred to engage in activities with high status individuals more than those in the gender condition, \( \chi^2(1) = 94.56, p < .01 \). We found no significant interactions, all ps > .05. We used the same binary logistic regression analysis when looking at the conditions separately, incorporating each condition’s corresponding participant characteristics.

Table 1

*Means and 95% confidence intervals for main effects of age, status-endorsement (rope game), and condition on overall social preferences.*

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mean (95% CI)</th>
<th>Mean (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Younger</td>
<td>Older</td>
</tr>
<tr>
<td></td>
<td>.49 (.42, .56)</td>
<td>.68 (.61, .74)</td>
</tr>
<tr>
<td>Status endorsement</td>
<td>Status non-endorser</td>
<td>Status Endorsers</td>
</tr>
<tr>
<td></td>
<td>.51 (.43, .58)</td>
<td>.66 (.60, .72)</td>
</tr>
<tr>
<td>Condition</td>
<td>Gender</td>
<td>Race</td>
</tr>
<tr>
<td></td>
<td>.34 (.28, .39)</td>
<td>.80 (.74, .85)</td>
</tr>
</tbody>
</table>

*Gender.* Across gender, male and female participants displayed a strong preference for their own gender, \( \chi^2(1) = .785, p < .01 \), (M_Female = .13, 95% CI [.09, .20], M_Male = .67, 95% CI [.58, .76]). In other words, female participants had stronger social preferences for girls and male participants had stronger social preferences for boys. Use of gender to attribute social status to others on the rope game did not affect participants’ preferences for boys or girls, \( \chi^2(1) = .785, p = .376 \).

*Race.* Older participants displayed a stronger preference for White stimuli compared to younger participants, \( \chi^2(1) = 5.357, p = .021 \) (M_young = .73, 95% CI [.64, .80], M_old = .86, 95% CI [.77, .94]).
Moreover, there was a trend for status endorsers to show greater preferences for White stimuli as compared to status-non-endorsers \( \chi^2(1) = 2.970, p = .085 \), (M\(_{\text{status-non-endorsers}} = .75, 95\% \text{ CI} [.65, .82], \text{M}_{\text{status-endorsers}} = .84, 95\% \text{ CI} [.77, .90]) \). We found a 3-way age x participant race x status endorsing interaction, \( \chi^2(7) = 15.816, p = .027 \), and pairwise comparisons revealed that older White participants, regardless of status endorsing, preferred Whites more than younger White participants (see Figure 6). Status endorsing affected social preferences for older non-White participants, with status endorsers choosing the White social partner more than status non-endorsers.

*Figure 6.* Social preference responses of participants with age, participant race, and the rope game as predictors. 1 represents always choosing White stimuli and 0 represents always choosing Black stimuli. Significant pairwise comparisons are indicated. (**p < .05)**

*Wealth-matching.* Similar to the rope game, participants were separated into status endorsers \((n = 53)\) and status-non-endorsers \((n = 143)\). Participants who had a wealth matching score of 2 were labeled status endorsers (i.e., matching the high status house with the high status stimulus, and the low status house with the low status stimulus across both trials). Those who
had a score of 0 or 1 were labeled status-non-endorsers (i.e. matching the low status stimulus with the high status house across both trials, or only matching the high status house with the high status stimulus on one of the trials). The same binary logistic regression used to analyze the affect of rope game on social preferences was used to analyze the affect of wealth matching on social preferences.

Results match those found using the rope game a predictor. Older participants, $\chi^2(1) = 14.641, p < .001$, and status endorsers, $\chi^2(1) = 6.304, p = .012$, displayed stronger preferences for Whites/Boys compared to younger participants and status-non-endorsers, respectively (see Table 2). In addition, participants in the race condition showed stronger preferences for the high status individual when compared to those in the gender condition, $\chi^2(1) = 65.169, p < .001$. We found no significant interactions, all $p$s > .05.

Table 2

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mean (95% CI)</th>
<th>Mean (95% CI)</th>
</tr>
</thead>
<tbody>
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<tr>
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<td>.69 (.62, .75)</td>
</tr>
<tr>
<td>Older</td>
<td>.69 (0.59, .77)</td>
<td>.69 (0.59, .77)</td>
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<tr>
<td>Status endorsement</td>
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<tr>
<td>Status-non-endorsers</td>
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<td>.69 (.59, .77)</td>
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<td>.69 (0.59, .77)</td>
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<tr>
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<tr>
<td>Gender</td>
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<td>.81 (.75, .86)</td>
</tr>
<tr>
<td>Race</td>
<td>.81 (.75, .86)</td>
<td>.81 (.75, .86)</td>
</tr>
</tbody>
</table>

**Gender.** Male and female participants showed greater preferences for their respective genders, $\chi^2(1) = 34.216, p < .001$ ($M_{\text{male}} = .68, 95\% \text{ CI} [.59, .76], M_{\text{female}} = .16, 95\% \text{ CI} [.11, .21]$). There was a marginal difference in age, indicating that older participants showed slightly
greater preference for boys compared to younger participants, \( \chi^2(1) = 3.341, p = 0.068 \). Status endorsers and status-non-endorser did not differ in their preferences for boy and girl stimuli, \( \chi^2(1) = 2.133, p = 0.344 \). In addition, we found no significant interactions, all \( ps > 0.05 \).

**Race.** Older participants displayed stronger preferences for White stimuli than did younger participants, \( \chi^2(1) = 5.808, p = 0.016 \) (\( M_{\text{young}} = 0.74, 95\% \text{ CI}[0.65, 0.81], M_{\text{old}} = 0.87, 95\% \text{ CI}[0.79, 0.92] \)). Status endorsers preferred White stimuli more compared to that of status-non-endorsers, \( \chi^2(1) = 3.581, p = 0.058 \) (\( M_{\text{status-non-endorser}} = 0.76, 95\% \text{ CI}[0.68, 0.82], M_{\text{status-endorser}} = 0.86, 95\% \text{ CI}[0.77, 0.92] \)). Although the 3-way age \( \times \) participant race \( \times \) status endorsing was not significant, pairwise comparisons showed a similar pattern in older non-White participants as seen in the rope game analyses (see Figure 7).

**Figure 7.** Social preference responses of participants with age, participant race, and wealth matching as predictors. Significant pairwise comparisons are indicated. (* \( p < 0.1 \), ** \( p < 0.05 \))

<table>
<thead>
<tr>
<th></th>
<th>3.5-4 Years Old</th>
<th>5-6 Years Old</th>
<th>3.5-4 Years Old</th>
<th>5-6 Years Old</th>
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<tbody>
<tr>
<td><strong>White Participants</strong></td>
<td>Non-endorsers</td>
<td><strong>Endorsers</strong></td>
<td>Non-endorsers</td>
<td><strong>Endorsers</strong></td>
</tr>
<tr>
<td><strong>Non-White Participants</strong></td>
<td>Non-endorsers</td>
<td><strong>Endorsers</strong></td>
<td>Non-endorsers</td>
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**General Discussion**

The present research examined the developmental trajectory of children’s beliefs about social status, specifically their use of gender and race to attribute social status to others. Using a
new task (the rope game), we replicated findings from previous studies examining this question with respect to race (Olson et al., 2012; Shutts et al., 2016). In our study, children as young as 3.5-years-old used race as a marker of social status (i.e., ranking Whites as higher in social status than Blacks). Additionally, we found that children also used gender as a marker of social status (i.e., ranking boys as higher in social status than girls), a novel finding in the literature.

Along with finding that children endorse gender and race-based social status stereotypes, we found that participant age, gender, and race affected the extent to which they endorsed these stereotypes. Older female participants (5 - 6 years old) ranked girls lower in social status than did younger female participants (3.5 - 4 years old), a pattern we did not find in male participants, who all ranked boys as higher in status than girls. This pattern in female participants raises questions about the consequences of holding these beliefs. Viewing one’s social group as lower in status may impact the way females view themselves and their motivations and beliefs about what they can and should do. This has been shown for race; endorsement of race-based social status stereotypes led to decreased occupational ambition for Black children (Bigler et al., 2003). Thus, future research should examine whether using gender as a marker of social status impact girls’ view and beliefs about themselves, in a way that might negatively impact their occupational ambitions.

Although this current study did not look into whether gender-based social status beliefs affected self-relevant attitudes, we found that use of social group membership as a marker of status affected intergroup attitudes, but only in certain circumstances. Using gender as a marker of social status did not predict explicit gender preferences for male and female participants, perhaps because both male and female participants strongly preferred their own gender. Indeed, past studies have indicated that girls show explicit and implicit own-gender preferences from as
young as three years old (Dunham, Baron, & Banaji, 2015; Shutts, Roben, & Spelke, 2013; Yee & Brown, 1994). This general own-gender social preference may not be affected by children’s beliefs about relative social status; however, gendered stereotypes about status may affect other types of attitudes.

Children who endorse social status stereotypes about gender may have negative attitudes toward females who don’t conform to these stereotypes. For example, studies of adults have shown that females that are perceived to be power- or status-seeking are often not only held to different standards than those occupying gender-congruent roles (high status males), but also seen as less competent and evaluated less positively by both men and women (Brescoll & Uhlmann, 2008; Brescoll, Sarnell, & Moss-Rascusin, 2012; Okimoto & Brescoll, 2010), a phenomenon often referred to as “backlash” (Rudman, 1998). However, the development of this backlash response has not been investigated. It is possible that gender-based social status beliefs in children may lead them to have expectations about social structures in society, causing them to view children who don’t conform to these expectations more negatively than those occupying gender-congruent roles (e.g., to have negative attitudes toward females and males who violate gender stereotypes). Thus, we might predict that children who endorse gender-based social status stereotypes will exhibit negative attitudes towards females that are perceived to be status- and power-seeking. Future research should examine this prediction.

Although we did not find that gendered stereotypes about status affected children’s intergroup attitudes, we found – in line with prior research – that racial stereotypes about status do. Our findings reinforce the idea that while children of socially dominant majority show strong in-group preferences, minority children do not prefer their own racial group to the same degree (Dunham, Chen, & Banaji, 2013), and that this effect may be driven in part by children’s beliefs
linking race and status. Preferences for high status individuals have predicted implicit and explicit outgroup preferences by minority children (Newheiser et al., 2014). Thus, endorsing stereotypes linking race to social status may be especially influential in minority children’s intergroup attitudes. In our study, both younger and older non-White participants rated Whites as higher in status than Blacks. Interestingly, status endorsing (i.e., using race to mark social status in a societally stereotypically way) only predicted social preferences for Whites in older non-White participants, with status endorsers showing greater preferences for Whites more compared to that of non-endorsers. In general, White participants preferred Whites regardless of status endorsement, perhaps dues to White participants’ overall strong in-group bias. Taken together, these results support the idea that the reason that minority children do not hold as strong own-group favoritism compared to Whites is due to the links between race and status.

Although White participants displayed strong in-group social preferences, older White participants did not show the same pattern of results on the rope task as younger White participants. Younger White participants rated Whites as higher in status than Blacks, whereas older White participants rated Blacks and Whites as equal in status. It is unlikely for older participants to stop endorsing stereotypes linking race to social status. Thus, we suspect that older White participants tendency to rank Whites and Blacks equally (instead or rating Whites as higher) may have arisen due to the simultaneous development of other possible factors. For example, older children might have been more aware than young children of being monitored by the experimenter, and thus were extrinsically driven to control in-group biases in order to be looked upon more favorably (Rutland, Cameron, Milne, & McGeorge, 2005). It is equally possible that this pattern might reflect children’s increasing concerns with moral judgment and fairness, and their burgeoning concepts of equality versus equity. Concerns with fairness, equity,
and rights of others influence older children’s evaluations of social inequality (Elenbaas & Killen, in press). However, although children are motivated to reduce inequality, they still display favoritism toward advantaged groups (Li, Spitzer, & Olson, 2014); therefore, it is not surprising that although older White children from this study may have been contemplating status rankings in terms of fairness (e.g. giving White and Black children equal opportunity to pick the snacks and access to resources), they still displayed favoritism toward high status groups. Due to these possible factors that might lead older children to inhibit a response in line with societal stereotypes, future research should examine implicit ways of investigating children’s knowledge of social status beliefs.

It is important to note that participant characteristics (gender, race, and age) were not the only factors to influence participants’ use of race or gender as a marker of status. The data from the wealth-matching task suggest that participants’ were more likely to use cues to wealth when using race, as compared to gender, as a marker of status. Similar to previous studies (Olson et al., 2012), we found that children were more likely to associate high status wealth cues (i.e., nicer houses) in a way that matches societal stereotypes for race but not gender, which suggests that children may use different status cues in their representations of gender and race. Although we found no differences between the resources and power condition in Study 1, assessing wealth cues different in Study 2 allowed us to gain insight into the specific wealth cues that children use to evaluate others.

It is unsurprising that children may use different cues to mark status across different social categories, as the types of environmental input linking status to race or gender that children might receive are likely to differ. For example, children may have greater exposure to power discrepancies between males and females than they do between Whites and Blacks.
Content from picture books for younger children often portray females in passive wife or caretaker roles, while portraying males as more active and competent (Kolbe & LaVoie, 1981; Peterson & Lach, 1990; Weinraub, Jaeger, & Hoffman, 1988; Weitzman et al., 1972). Males in popular films are also seen in more leadership roles and have more occupational power compared to females portrayed in media (Lauzen & Dozier, 2005). The passive and low status representation of females in media as well as books that children are directly exposed to may perpetuate the stereotype that attributes higher occupational status or greater social dominance to males than females. Wealth cues, on the other hand, may be more clearly aligned with race, given the harsh reality of residential segregation in the U.S. (Bobo & Zubrinsky, 1996). Thus, it is not surprising that children were more likely to associate high status wealth cues with high status individuals in the race condition than in the gender condition. Future research should further examine how environmental input affects the particular cues that children believe mark the status of particular social groups in the most salient ways.

The present research examined the development of children’s awareness of socially constructed hierarchies, and how knowledge of social status stereotypes affects children’s social preferences. Children in this study were aware of gender- and race-based social status stereotypes, although participant age, gender, and race affected the extent to which they endorsed these stereotypes. Knowledge of these social hierarchies, and their relation to gender and race, could help explain the development of intergroup attitudes in children, specifically why members of lower-status groups sometimes show attitudes and behaviors that disadvantage their own group. Furthermore, these particular stereotypes may inhibit goal-seeking behavior and explain the discrimination faced by those who hope to seek careers that they don't stereotypically belong to. As research on this subject continues, we can begin to uncover precisely how the environment
shapes the development of children’s beliefs about social groups and their relative social status, as well as better understand the consequences of holding stereotypical beliefs about societal structures from such a young age.
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