An implicit assumption in the majority of literature looking at development of prejudice in children is that race prejudice and sex prejudice are equivalent across groups; that is, sex bias is not conditional on race, and likewise race bias is not conditional on sex bias of the child. However, Warner, Fishbein, Ritchey and Case (2001) found strong three-way race-sex/rater-target interactions when comparing children's same race-same sex group perceptions with their perceptions of the other three race-sex groups, as measured by their instrument, the Scale of Children's Attitudes toward Race and Gender-I (SCATRG-I). The goals for the current study were as follows: to develop from the SCATRG-I a more psychometrically sound instrument; to compare race-sex groups same race-same sex group perceptions with their perceptions of out-groups; and to assess the validity of the SCATRG-II. To achieve the latter goal, the SCATRG-II was qualitatively compared to the Three Best Friends peer nomination technique. The SCATRG-II showed strong psychometric properties. The children again showed consistent same race-same sex group preferences and anti-other race-other sex group biases. While the pattern was not perfectly consistent, the Three Best Friends analyses showed the children to choose same race-same sex children as best friends most often. Two appendixes contain items form the SCATRG-I and II. (Contains 55 references, 6 tables, and 3 figures.) (GCP)
CHILDREN'S ATTITUDES TOWARD RACE AND GENDER

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Abstract

Recent literature looking at development of prejudice in children has focused in part on both race and sex biases (Fishbein, 1996). An implicit assumption in the majority of this literature is that race prejudice and sex prejudice are equivalent across groups; that is, sex bias is not conditional on race, and likewise race bias is not conditional on sex bias of the child. However, Warner, Fishbein, Ritchey and Case (2001) found strong three-way race-sex/rater-target interactions when comparing children’s same race-same sex group perceptions with their perceptions of the other three race-sex groups (i.e. Black/White girls/boys), as measured by their instrument SCATRG-I. These results partially supported the findings of earlier race-sex discrimination studies (Fishbein & Imai, 1993; Singleton & Asher, 1977). The goals for the current study were as follows: to develop from the SCATGR-I a more psychometrically sound instrument; to compare race-sex groups’ same race-same sex group perceptions with their perceptions of out-groups in an attempt to replicate the SCATRG-I three-way interaction findings; and, finally, to assess the validity the SCATRG-II. To achieve the latter goal, the SCATRG-II was qualitatively compared to the often-used Three Best Friends peer nomination technique. All goals were met. The SCATRG-II showed strong psychometric properties. The children again showed consistent same race-same sex group preferences and anti-other race-other sex group biases. While the pattern was not perfectly consistent, the Three Best Friends analyses showed the children to choose same race-same sex children as best friends far most often. Least frequent best friend choices did not fit any particular pattern. Differences in results may be due to differences between the two techniques including: continuous Likert rating versus force-choice count measures, differences between prejudice and discrimination as constructs, and the measurement of attitudes toward general groups versus behaviors toward identified peers.
Acknowledgements

I would like to extend my gratitude to my two committee members, Drs. Fishbein and Ritchey, for their contributions to this project; I am very proud of my ‘obra maestra’ and am thankful to have benefited from their expertise. Special thanks to Dr. Jim Deddens of the Mathematics Department, who offered supplemental statistical support and much appreciated encouragement. A final thanks is dedicated to: the Assistant Director of Education for the school district I studied- a fantastic woman who graciously entrusted me with 370 of her students, the 18 teachers whose classrooms I visited, and especially the kids, who made this study worth doing.
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Children's Attitudes Toward Race and Gender

Logic intuits, likely due to the influence of Freud, that the racial and gender prejudices found among adults are largely the fruit of seeds planted in childhood. Thus, the study of children's attitudes toward race and gender is integral to the study of prejudice. Recent literature looking at the development of prejudiced attitudes in children has focused in part on both race and sex biases (Fishbein, 1996). An implicit assumption in the majority of this research, however, is that race prejudice and sex prejudice are equivalent across groups; that is, sex bias is not conditional on race, and race bias is not conditional on sex, of the target-child or rater-child.

Generally speaking, studies investigating prejudice abounded. This area of study gained attention by Kenneth Clark's seminal work, as compiled and eventually published in 1963. Clark, along with his wife Mamie Phipps Clark, began researching prejudice and racial awareness in children in the 1930s using dolls to represent the White and Black races (criticisms of this method are discussed below). Clark found the presence of racial awareness in children as young as four years old and a strong pro-White bias in the majority of the Black children he studied; his 1950 report was quite influential in the 1954 Brown v. Board of Education decision to desegregate American schools (1963). Desegregation sparked major research interest in the area of race prejudice and further explorations of children's attitudes toward out-groups revealed that racial biases tend to stabilize between eight and 12 years of age (Aboud, 1988; Williams & Morland, 1976).

Researchers looking at development of racial prejudice found that Black four year olds often showed no preference between Black and White pictures, or that they preferred White. The pro-White bias was found to strengthen until age six or seven, at which time Black children showed a tendency to develop a preference for the Black pictures. This was found to decline again
between eight and ten years old. The pattern for White children was quite stable: at all ages, White children prefer Whites (Fishbein, 1996).

The Preschool Racial Attitudes Measure II, or PRAM II (Williams & Morland, 1976), was the instrument used to quantify children's attitudes in most of the studies post 1960 (Fishbein, 1996). In this picture-based measure, children are asked to choose which of the two children pictured (one is light-skinned and one dark, thus representing White and Black races) is ugly, naughty, nice, etc. Children who consistently assign the negative traits to the dark-skinned child and positive to the light are assumed to have pro-White and anti-Black biases. However, Fishbein argues that knowing that a child prefers pictures of White children over Black does not necessitate Black rejection; instead attitudes toward Black children may be neutral. Methodological problems stemming from this point will be further discussed below.

Other researchers began to look to gender for group differences and a strong same sex attitudinal preference has been consistently found in children as young as preschool age (Emmerich & Shepard, 1984; Maccoby, 1990) and in elementary school aged children (Zalk & Katz, 1978). Bussey and Bandura (1984) found three year olds to show a preference for imitating same sex models, rather than other sex; this preference was especially pronounced for boys. Studies have even shown children's same sex preference to be reinforced by the children themselves, with each sex monitoring its own members (Fagot, 1985). While these and many other studies have greatly advanced our understanding of prejudice, the current pool of literature is limited in that, with one exception, the studies have all treated race and sex prejudices as separate, non-interacting phenomena.

The Scale of Children's Attitudes Toward Race and Gender-I, or SCATRG-I (Warner, Fishbein, Ritchey & Case, 2001), was a four-point Likert scale that attempted to elicit children's attitudes toward Black girls, Black boys, White girls, and White boys ('attitudes toward' and
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perceptions of will be used interchangeably throughout this paper). The SCATRG-I was a unique instrument in that it examined attitudes toward race and gender simultaneously. Moreover, the scale was also unique in that it was paper and pencil based and could be group-administered to children of elementary school age. Other measures of children's attitudes toward out-groups such as the PRAM II (Williams & Morland, 1976) and MRA, or Multi-response Racial Attitudes, measure (Doyle & Aboud, 1995) focus solely on race and are picture/doll based, and thus are not conducive to group administration. These techniques have also been criticized for their forced-choice tactics. Like Fishbein (1996), Singleton and Asher (1977) argued that forcing a rater-child to choose which single target-child they like better, is nicer, cleaner, naughtier, etc., does not necessarily afford inference of their attitudes toward the other choice(s); thus, apparent bias may actually be inflated. They suggested that, while their own findings of a weak race bias relative to that found in prior studies might have been due to the positive effects of desegregation, it could also have been attributed to their use of non-forced choice techniques. Moreover, studies using continuous measures report that, while children tended to rate their own group most positively, their least-preferred groups received neutral ratings, not negative (Aboud and Mitchell, 1977). The fact that Clark's (1963) seminal work was based on the use of these techniques may indeed be a weakness.

SCATRG-I items were designed to focus on both academic ability and classroom social skills, as well as social distance preferences. These particular foci were chosen because they are highly relevant to the school environment, which is the most salient and pervasive extra-familial social aspect common to children's lives, and also one of the main environments in which children's social behaviors and attitudes toward out-groups have been studied. Elementary school aged children in particular were chosen because, as already mentioned, development of racial attitudes is believed to level off between eight and 12 years of age (Aboud, 1988; Williams &
Morland, 1976); therefore, an instrument measuring this age group's attitudes is pivotal to an understanding of the development of prejudice.

In what sense do these attitudes reflect prejudice? Prejudice has been characterized as having three essential dimensions: cognitive (i.e., beliefs), affective, and behavioral predispositions (Ehrlich, 1973); Yoder called this the "typical triumvirate of psychological conceptualization" in the context of sexism (1999). Paralleling this definition, the initial choice of the academic and classroom behavioral skills factors was meant to capture the cognitive, or belief, dimension of prejudice, while the social distance factor was meant to reflect the behavioral dimension (Fishbein, 1996). Due to schools' general reluctance to broach the topic of racism for fear of causing conflict, especially in the aftermath of this city's recent race riots, it was not feasible to use items tapping into the affective dimension.

The SCATRG-I items (Warner et al., 2001) loaded on two factors, with 16 items total loading on a Classroom Skills factor (four per race-sex group), and eight items total on a Social Distance factor (two per race-sex group; see Appendix A). As a result of creating four subscales in which each race-sex group (Black girls, White girls, Black boys, White boys) served as target for a set of otherwise identical items, it needed to be determined that each subscale was being responded to similarly, and thus presumably measuring the same phenomenon, regardless of target group. The statistical concept is called invariance. To test the scale's invariance, Warner et al. applied the standards used to corroborate the assumption that scales translated into another language measure the same factor or construct as the original (Steenkamp & Baumgartner, 1998). The goal was to develop a set of items that taps into the same factors for each race-sex group to thus equivalently measure children's attitudes toward these groups.

The psychometric properties were found to afford comparison of children's same race-same sex group perceptions to their perceptions of the other three race-sex groups, as well as
comparison of how each group was rated and how each group rated the other three groups. For Classroom Skills, a Repeated Measures ANOVA revealed no significant within or between subjects effects, i.e. the groups were not ranked differently overall, and did not rank each other differently overall. The data showed that the four race-sex groups’ attitudes toward themselves and each other were consistently positive. However, analysis of Classroom Skills did reveal a significant interaction (p < .001). Group means indicated that each group rated itself most favorably, with same race members as second highest (e.g., Black boys ranked Black girls second most positively). For all groups except Black boys (who ranked White boys least positively), the other race-other sex group was ranked least positively.

For Social Distance, the Repeated Measures ANOVA also revealed a significant interaction. Again, each group ranked itself most favorably and the other race-other sex group least favorably, this time without exception. However, unlike Classroom Skills, the children ranked as their second highest choice same sex groups, as opposed to same race groups, with the exception of Black girls who ranked White girls and Black boys second highest.

In addition to the scale administration, teacher student interactions were observed in order to assess the occurrence of differential teacher behavior as a function of the race and sex of the students. This was done to determine whether teachers’ differential treatment of students had any relationship to the children’s attitudes toward each other (i.e. did the children’s ratings reflect the student-teacher interactional patterns?). Analyses showed that the vast majority of teacher attention, both positive and negative, was directed at Black boys (36.3%), with the smallest proportion (primarily positive) given to White girls (17.5%); White boys and Black girls received about as much attention as would be expected were there no effect of student race and sex.

These results show that teachers spent a disproportionately large amount of time interacting with Black boys, and a disproportionately small amount of time with White girls. As the
results of the scale analyses showed children's ratings to be essentially equivalent across race-sex groups, there does not appear to be much of a relationship between the two variables. Clearly, teachers' behavior had little, if any, bearing on the children's attitudes (i.e. the children did not rate Black boys and White girls differently than the other children). The clarity of such findings lends support for the usefulness of children's attitude scales in studying prejudice, as it appears to be fairly independent of such factors as teacher differential treatment of students.

To the best of my knowledge, Warner et al's (2001) simultaneous approach to studying children's prejudice was novel. The discrimination literature, however, has also examined bias in four main race-sex groups (Black girls, Black boys, White girls, White boys) and has shown that simply considering race and sex independently of one another may obscure the true picture. For example, Fishbein and Imai (1993) considered simultaneously the role of race and sex when observing playground and classroom interactions of preschool children. Their data revealed an overall same sex peer preference, which is strongly supported in both the prejudice and discrimination literatures (Fishbein, 1996). However, a race-sex interaction was also found; girls preferred same race girls and least preferred White boys. Boys on the other hand, preferred White boys, but did show a same race preference when it came to girls. The authors suggest that differences in perceived race-sex group physical and social attractiveness and dominance may all have contributed to these findings.

Similarly, Singleton and Asher (1977) observed third grade children's interactions in their classrooms. They too found that same sex preferences dominated, and that girls showed a significantly stronger same race preference than did the boys, whose preferences by race did not differ from chance. They noted that the majority of observed cross-race interactions were positive.

1 Prejudice is thought to be separate from and partially unrelated to discrimination, as distinguished by its emphasis on attitudes rather than behaviors (Fishbein, 1996).
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Ratings of desire to both work and play with peers again revealed an overall same sex preference. Same race preferences emerged as well, although less significantly. Also, Black girls' ratings showed less sex bias than those of White girls and Black and White boys. The authors further noted that, although children's same race preference was significant, it actually accounted for very little statistical variation, especially relative to their same sex preference.

These results align generally with those of Warner et al. (2001) in that they support a need to examine race and sex biases simultaneously. A more specific comparison does not align as neatly, however, as Singleton and Asher (1977) and Fishbein and Imai (1993) reported that the same sex preference of their sample was much stronger than same race. While this was true for Warner et al's Social Distance factor, the opposite pattern appeared for the Classroom Skills factor, with children rating same race second most favorably. This seems logical, as Social Distance is thought to measure a predisposition for behavioral discrimination, the object of Singleton and Asher's and Fishbein and Imai's studies, while Classroom Skills was a belief-based attitudinal factor. Furthermore, Warner et al. did not find Black girls' sex bias to be different from that of the other three groups. Nonetheless, the overall interactive nature of all of these results indicates that examining the role of race and sex in children's prejudice separately may be misleading.

The primary purpose of the present study was to further develop the SCATRG-I (Warner et al., 2001). The goal was to create items loading on three factors, Academic Ability, Classroom Social Skills and Social Distance, with at least four items per factor. Replication of the Warner et al's three-way race-sex/rater-target interaction, using an elaborated version of the scale, would lend strong support for the hypothesis that researchers must consider both race and sex of both rater and target children.

The second purpose of this study was to compare the attitudes of each of the four race-sex groups. First, children's same race-same sex group perceptions were compared to their
perceptions of the other three race-sex groups; this was possible because in the SCATRG-I and -II, items are rated four times (once for each target group). Second, attitudes toward each target group were compared (i.e. how each group was rated overall). These two comparisons were made to test the historically found phenomenon of a strong White race preference, even for Black children (Clark, 1963; Fishbein, 1996). Third, each group’s perceptions of the other three race-sex groups were compared (i.e. how each group rated the other three groups overall). This was done to test the finding that Black girls rate other groups more positively than do other children (Singleton & Asher, 1977), which, again, could possibly be due to the use of forced-choice techniques. It was acknowledged in advance that, in the event of a significant interaction, interpretation of the latter two comparisons necessarily becomes questionable.

With regard to the second purpose of this study, the following hypotheses are offered. To the extent that prejudice and discrimination are related, one might expect that patterns similar to those found in the discrimination literature would arise in studies examining prejudiced attitudes. A meta-analysis of 60 studies examining the relationship between prejudice and discrimination (Schutz and Six, 1996) showed a correlation of only .286. In light of the discrimination literature and the results of the first study (Warner et al., 2001), one is left to question if this small relationship is due to the distinct natures of prejudice and discrimination, or rather to a lack of more fine-grained analyses that consider race and sex simultaneously. Scale results supporting the findings of discrimination research would further indicate a need to consider the interaction between race and sex when measuring prejudice, as neglecting to do this may have obscured the nature of prejudice, and consequently the relationship between discrimination and prejudice.

With this and the results of studies of elementary school aged children such as those by Singleton and Asher (1977) and Warner et al. (2001) in mind, it was predicted that the SCATRG-II would reveal race-sex interactions as well. While Singleton and Asher’s results suggest that girls
will show a preference for children of their own race and sex, with same race boys as their second choice, and that boys would prefer same sex peers, but not necessarily same race, the Warner et al. results indicated a more complicated picture. Therefore, the investigator expected to find an interaction that depends not only on the race and sex of both target and rater, but on dimension of prejudice (Social Distance: behavioral, or Academic Ability and Classroom Social Skills: cognitive) as well.

The third purpose of this study was to compare children's attitudes as measured by the SCATRG-II and the established and often used Three Best Friends peer rating technique (Criswell, 1937, 1939; Moreno, 1934). Properties of this measure have been reviewed in detail elsewhere; according to Bukowski and Hoza, "previous research has shown this to be a stable measure of peer acceptance" (1989). The Three Best Friends technique is a discrimination measure, in that it reflects behavioral choices (whom the child chooses as her best friend and presumably interacts with most) of identified individuals. This comparison was hoped to afford a better understanding of the relationship between prejudice and discrimination that is currently so unclear. Analyses of the Three Best Friends data were hypothesized to reveal an interactional pattern similar to that of the SCATRG-II, with children choosing members of their own race-sex group as best friends most frequently, and members of the other race-other sex group least. Furthermore, it was expected that children would choose same sex best friends second most frequently.
Method

Participants

247 third and fourth grade children participated. Teachers sent home parental consent forms to participate in the attitude scale administration on multiple occasions; participating children were given a token gift of a brightly colored brain-shaped eraser. The final consent rate was 65%. The children came from three schools in a district with a median 1999 family income of $24,184.

The initial sample was comprised of 50 Black boys, 60 Black girls, 54 White boys, 66 White girls, and 17 “other race” girls and boys. Because the number of “other” race children was too small for statistical comparison, the data from the classification of “other” race were eliminated for purposes of statistical analysis. Therefore, data from 230 participants were analyzed.

The children ranged in age from 8 to 12 years, with 20 (8.7%), 103 (44.8%), 93 (40.4%), 13 (5.7%), and 1 (.4%) of the children being eight, nine, ten, eleven and twelve years old, respectively. One hundred twenty-two children (53%) were in third grade and 108 (47%) were in fourth. As the schools’ populations were mixed approximately evenly between boys and girls, and Blacks and Whites, it appears that the rate of consent return was approximately even in its distribution across the race-sex groups.

Procedure

The children completed the attitude scale (see Appendix 2) in their classrooms or the school library. The teachers were not present during administration, as they attended to the non-participating children. The principle investigator read directions and items aloud to each group and repeated both as necessary. To ensure that the children understood how to use the rating system, the investigator presented two neutral sample items to fully illustrate how the system was to be used, and reminded the children how to record each possible response periodically throughout the administrations. The children were directed to keep their eyes on their own papers and refrain
from making comments in order to afford each other privacy to answer honestly. For children showing concern that their peers would look at their responses, hard cover books were provided for use as dividers to enhance privacy and therefore ease any hesitation to answer honestly. The investigator answered questions about the items and the purpose of the scale at the end of administration.

Scale of Children’s Attitudes Toward Race and Gender

The SCATRG-II originally included 84 four point Likert items (21 identical items for each race-sex group); 20 were carried over from the initial version (Warner, et al., 2001; see Appendix B). Items for the scale were written in an attempt to tap into beliefs about Black girls’ (BG), White girls’ (WG), Black boys’ (BB) and White boys’ (WB) academic abilities, classroom social skills, and social distance preferences. The Academic Ability factor is interpreted to reflect perceptions of target groups’ academic abilities: “Black girls are just as good in math as other kids”, while the Classroom Social Skills factor reflects perceptions of social skills that are especially relevant to functioning in the classroom environment: “White boys are not as helpful to the teacher as other kids.” The Social Distance factor is a measure of the degree of comfort (or lack thereof) children have in interacting with out-group members, as judged by degree of “social distance” inherent in each interaction: “I do not like sitting with White girls at lunchtime as much as with other kids.”

As in the first study (Warner et al., 2001), these foci were emphasized because of their relevance to the school environment, which again is the most salient and pervasive extra-familial social aspect common to children’s lives and one of the primary environments in which children are studied. Because the SCATRG-I did not neatly segment into these three factors, special attention was paid to developing items more likely to do so in the revised version.
Three Best Friends Technique

In addition to the SCATRG-II, each participant received a copy of her classroom roster. The children used their rosters to complete the Three Best Friends measure. To do so, they were instructed to circle the names of their three best classroom friends. When the children asked if they could choose more or less than three best friends, they were encouraged to please do their best to choose exactly three. When children asked if they could choose themselves, they were told to do so if they really considered themselves one of their best friends.
Data Analysis

Scale Properties

The scaling efforts proceeded in two phases. In phase one, the objective was preliminary selection of the items that most strongly measured the constructs. I worked separately with items for each of the three factor scales, but pooled the data across target groups. Using confirmatory factor analysis, items for each factor scale were found to load on two highly correlated factors. With each set of scale items, positively worded items loaded on one factor and negatively worded items loaded on a second factor. Following Herche and Engelland (1996), it was decided, and corroborated with additional analyses, that the items for each scale reflected a single substantive factor representing acquiescence response bias; thus, measurement errors among the positively worded items were correlated. Items were tested for fit to a model supporting a similar data configuration. The fit was such that two items per target group per factor were eliminated. Phase one concluded with five items per target group per factor. These models became the foci of phase two, where it was asked if the items had the same meaning irrespective of the target group to which each applied.

In phase two, the factor scales were refined by exploring the invariance across the four race-sex target groupings. For each of the three attitudes, I examined whether the same items loaded on the factor (configural invariance), the invariance across groups of the item variances and means, the unstandardized factor loadings (metric invariance), the intercepts associated with the factor loadings (scalar invariance), the item error terms, the standardized loadings (invariant reliability coefficients), the factor variances and covariances, and the differences in means among factors. According to Steenkamp and Baumgartner's (1998) model, a scale must display configural, at least partial metric, and at least partial scalar invariance among groups to permit a meaningful contrast of means. In other words, a scale must show that its items load on the
appropriate factors (configural), a one unit change in the mean scale score (i.e., latent variable) corresponds with equivalent units of change for each item (metric), and that the items share common zero points (scalar).

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Three factor scales for each target group were formed by summing the SCATRG-II item scores and dividing by the number of items in the factor. SAS Proc Mixed analyses tested whether the groups rated themselves and the other race-sex groups the same or differently on each factor (i.e. how each group rated itself compared to the others). This procedure also allowed examination of all possible within and between group comparisons, adjusting for unequal group sizes and dependence of repeated measures data by estimating fixed (race-sex groups) and random (subjects) effects parameters.

To analyze the Three Best Friends data, the number of best friends by race and sex was tabulated for each child, creating scores for the four categories, i.e. how many of their three best friends were Black girls, Black boys, White girls and White boys. A one between (race-sex of chooser), one within (race-sex of best friend choices) Repeated Measures ANOVA was run to test differences in who Black girls, Black boys, White girls and White boys tended to nominate as best friends, i.e. to which race-sex group the best friends belonged.
Results

Scale Properties

Cronbach's alphas were .79, .76, and .58 for Academic Ability, Classroom Social Skills and Social Distance respectively (it is worth noting that the latter scale had the smallest number of items). See Table 1 for standardized and unstandardized factor loadings. With regard to subscale invariance, I found that the psychometric properties of the SCATRG-II corroborated the view that the items reflect the same three dimensions of prejudice independent of the target group to which the items refer. The race-sex subscales were found to have at least configural, partial metric and partial scalar invariance, the standard adopted by Steenkamp and Baumgartner (1998). Final model fit indices for Academic Ability were: \( \chi^2 = 36; p = .4688 \); with a Goodness of Fit Index (GFI) of .989. Final Classroom Social Skills fit indices were: \( \chi^2 = 37.7; p = .1895 \); and GFI = .981. Lastly, final Social Distance fit indices were: \( \chi^2 = 38.57; p = .0693 \); and GFI = .992.

Table 2 provides a description of each factor and its associated items. Notably, the corresponding items for Academic Ability were parallel across groups where Black girls, White girls, and Black boys were the target groups. For example, each of the three target groups' math ability items had the same variance as its counterpart in the other groups and the same amount of variance accounted for by the factor. Thus, each target groups' items were equally reliable indicators of academic ability. Items that are parallel far exceed the base-level requirement sufficient to assert that the items are measuring the same concept for each group.

While the items for the Classroom Social Skills scale have sufficient invariance to allow comparison of factor subscale means across target groups, no item was completely parallel across all four groups. The item "raise hands" was parallel where Black girls and Black boys were the targets. The items "follows directions" and "helpful to teacher" were parallel where Black girls,
Black boys, and White boys were targets. The item "getting out of seat" was parallel where Black and White boys were targets.

For Social Distance, the item "sit with at lunch" was parallel across all four target groups. The item "invite to home" was parallel for the White and Black girl target groups. These results indicate that the three factors can be confidently measured with the same items regardless of the target group, as the race-sex subscale items demonstrated invariance above and beyond the level of partial scalar invariance.

Children’s Attitudes

Scale of Children’s Attitudes Toward Race and Gender-II. Proc Mixed analyses revealed several significant differences with regard to how Black girls, Black boys, White girls, and White boys rated the four race-sex groups. Because of the large number of comparisons made, a p < .001 (48 tests divided by .05) criterion was adopted to determine significant differences between groups. While the differences were not all significant at p < .001, interesting, parallel patterns emerged.

To begin with, all three factors showed highly significant interaction effects (p < .001). All four race-sex groups rated their own group most positively across the three factors without exception. Furthermore, 10 of 12 groups rated the other race-other sex group least positively for all three factors; a test using binomial probabilities indicated that there is just a .0009 probability of finding these results due to chance. Interestingly, generally consistent patterns regarding second and third highest ratings emerged as well. Overall, the four race-sex groups tended to rate same race children second most favorably and same sex children third. This held true for 9 of 12 comparisons. Clearly, the pervasiveness of the general patterns was such that chance occurrence was not a reasonable explanation. The exceptions, as detailed below, were more likely explained by sampling variability than by a lack of relationship.
More specifically, for Academic Ability (for means, see Table 3), the between subjects effect (i.e. the four groups rated others differently overall) approached significance (p < .07). Tukey comparisons showed there to be a notable difference between only two of the groups. Specifically, Black boys tended to rate others less positively overall than did White girls (3.22 versus 3.49; p = .05). However, as noted earlier, interpretation of this effect is necessarily questionable in light of the strong interaction effect.

With regard to race-sex group same race-same sex group perceptions versus perceptions of other race-other sex groups' Academic Ability, there was a strong trend for Black girls to rate themselves (3.5) more positively than White boys (3.23; p = .002). Black boys rated themselves (3.6) significantly higher than they rated White girls (3.08), although they rated White boys (2.88) least favorably, which was the exception to the general pattern of rating the other race-other sex group lowest. White girls rated themselves (3.7) more positively than they did Black boys (3.39), and White boys rated White boys (3.69) more positively than they did Black girls (3.18). The latter three differences were significant at p < .001. With regard to the pattern of children rating same race children second most favorably and same sex third, White girls were the only group who instead rated same sex children second most positively and same race third.

For Classroom Social Skills (for means, see Table 4), the interaction effect was also significant at p < .001. Again, Black girls rated themselves (3.48) more positively than they did White boys (3.09). Black boys also rated themselves (3.3) significantly higher than White boys (2.96); this was the second exception to the overall pattern, with Black boys rating the other race-other sex group (White girls) second least favorably instead of least favorably, as on Academic Ability. White girls rated themselves (3.66) more positively than they rated Black boys (3.09) and White boys rated themselves (3.61) more positively than they rated Black girls (2.94).
For Social Distance (for means, see Table 5), again the interaction effect was significant \((p < .001)\). While the difference was not significant at \(p < .001\), Black girls rated themselves (3.51) most favorably and White boys (3.17) least \((p = .007)\). Black boys rated themselves (3.41) higher than they rated White girls (2.95). White girls rated Black boys (2.91) less positively than they rated themselves (3.55) and White boys rated themselves (3.58) more positively than they did Black girls (2.81). The latter three differences were all significant at \(p < .001\). Exceptions to the general pattern of second and third highest ratings for this factor were the ratings of White girls and White boys, who both rated same sex children second highest and same race third.

Worth noting is the problem of Type II error inherent in adopting such a stringent \(p\) value. While the overall race-sex interaction was the main focus of this study, and this was indeed supported at a \(p < .001\) level, several other group differences were significant at the general \(p < .05\) level. In spite of the exclusion of these smaller differences from significance, the data are sufficiently summarized by the strong interaction effects and significantly consistent pattern of biases.

*Three Best Friends data.* A Repeated Measures ANOVA compared the children’s three best friend choices across the four race-sex groups, revealing some interesting differences as well. The interaction between race-sex of chooser and race-sex of chosen was highly significant \((p < .001; \text{see Table 6})\). Paired sample t-tests showed several differences between the four race-sex groups with regard to whom (i.e. race-sex of best friend choices) each group tended to nominate as best friends. Because of the number of comparisons performed, a \(p\) value of .002 (the usual \(p\) level of .05 divided by 24 tests) was adopted to determine significance.

While the differences were not all significant at \(p < .002\), some patterns parallel to those seen in the scale analyses emerged. To begin with, all four race-sex groups chose same race-same sex best friends most frequently; a partial exception to this rule was for White boys, who
chose themselves and Black boys with identical frequencies. With regard to other race-other sex best friendships, only Black girls and White boys followed the pattern of SCATRG-II, choosing each other least frequently. Black boys actually chose Black girls least frequently, and White girls chose White boys least frequently. While these differences are nominal, they demonstrate a departure from the clear attitudinal tendencies of the children. Interestingly, all four groups chose same sex children second most frequently, which directly opposes the tendency of the children to rate same race children second most favorably, as measured by the SCATRG-II.

More specifically, Black girls nominated themselves as best friends more often than they chose Black or White boys (p < .001); Black girls also chose White girls more often than either Black or White boys (p < .002 and .001 respectively). While it did not meet the p < .003 criteria, it is worth noting that Black girls chose themselves as best friends more often than they did White girls at p < .037. Black boys chose their own race-sex group as best friends significantly more often than they chose other children (all at p < .001), as did White girls (all at p < .001). Lastly, White boys chose both themselves and Black boys as best friends with equal frequency; both of these choices occurred significantly more frequently than nominations of either Black girls (both at p < .001) or White girls (both at p < .01).
Discussion

Scale Properties

Analyses showed that the scale was invariant to target group. Therefore, attitudes toward each target group can be measured and compared by nearly or completely parallel items. When an item is parallel to its counterparts across groups, the item's values can be compared across groups. Parallel items are good candidates for future researchers requiring a shortened version of the SCATRG-II.

SCATRG-II appears to be a solid instrument. This is particularly important considering the general lack of children's attitude measures that offer the type of flexibility built into the SCATRG-II. Because it is paper and pencil based, can be group administered to elementary school aged children, and assesses attitudes toward race and sex simultaneously, the SCATRG-II affords a richness to children’s attitude data that in turn affords a fuller understanding of children’s race-sex biases. For example, in the SCATRG-I study, Warner et al. (2001) found that teacher behavior does not seem to influence children’s attitudes toward out-groups. This lack of relationship between children’s attitudes and the observations of teacher differential behavior illustrates how instruments like SCATRG-II add pieces to the prejudice puzzle that researchers may not otherwise know are missing.

Moreover, while an adequate Cronbach’s alpha is the usual marker applied to defend a scale's applicability, this not a sufficient marker when the scale contains multiple counterpart subscales; in this case, subscale invariance must be considered. When trying to simultaneously measure attitudes toward multiple target groups (e.g. attitudes toward Black girls, White girls, Black boys and White boys), these attitudes are generally assumed to be consistent independent of target group (e.g. items regarding Black girls' academic ability carry the same meaning as the counterpart items for White boys). Items that are systematically responded to differently because
of their target group are not reliable across groups (e.g. if items from the Black girl Academic Ability subscale are interpreted differently than White boy Academic Ability items). The reliability of the 84 original items showed Cronbach’s alphas to range by factor from .74 to .91, which most researchers would have considered to be very good in a unidimensional scale. However, the tests of invariance showed that all of the original items did not allow parallel measurement of attitudes toward each target group (i.e. the items were being responded to differently, based on target group, and thus seemingly represented different constructs). If the Cronbach’s alphas were relied upon as the indicator of scale utility, which may be adequate for unidimensional scales, many spurious conclusions could have resulted because of the multidimensionality of the SCATRG-II.

In addition to meeting the goal of acceptable subscale invariance, the goal of creating items that would load onto three factors (Academic Ability, Classroom Social Skills, and Social Distance) was met, unlike the SCATRG-I (Warner et al., 2001), which only had two factors (Classroom Skills and Social Distance). The Social Distance factor is a well-established measure of out-group bias, as originally proposed by Bogardus (1968), and is thus a strong base from which to approach the study of attitudes. The Academic Ability and Classroom Social Skills factors, as supported by the current data, are an important improvement over the SCATRG-I; again, the SCATRG-I factor of Classroom Skills represented a mixture of items related to both academic ability and classroom behavior, but Warner et al. were not able to establish separate factors. An attitude scale that distinguishes between the two types of skills, academic and social-behavioral, is particularly important in light of gender socialization theorists such as Bem (1981) who have found differences in how girls and boys are socialized to both behave and pursue academics by parents, peers, media and teachers (Sadker & Sadker, 1994; Yoder, 1999).

More specifically, studies such as those done by Sadker and Sadker (1984) and Warner et al. (2001), have found large differences in how girls and boys were treated by teachers with regard
to both academics and behavior. While the Warner et al. study did not find support for teacher influences on student attitudes toward out-groups, this was due to the children rating the race-sex groups positively overall. However, if the sample had been more prejudiced, the SCATRG-I data would have been more variable. In that case, direct comparison of children’s attitudes with teachers’ differential treatment of students based on both categories of academic ability and classroom social skills would have been warranted. Nonetheless, this comparison could not have been made because the SCATRG-I did not have separate factors. Because the SCATRG-II does have separate academic ability and classroom social skills factors, such comparisons are now feasible for future research.

Children’s Attitudes

SCATRG-II. Analyses of the children’s tendencies in rating the four race-sex groups revealed patterns that were highly consistent across the three factors. Specifically, Black and White girls and White boys rated their own race-sex groups most favorably and the other race-other sex groups least favorably on all three factors without exception. In the case of Black boys, this was true for Social Distance, but not Academic Ability or Classroom Social Skills. These results do not support the findings of a pro-White bias in Black children (Clark, 1963; Fishbein, 1996), although Clark did note the development of pro-Black attitudes in Black children at age six or seven that were found to decline again between eight and ten years old (the age group of the present study). There are some similarities between these findings and those of Singleton and Asher (1977), who also found a same race-same sex preference in their study, although the preference was only found for girls; boys preferred same sex, but showed no race preferences. These results align with those of Warner et al. (2001), with both studies finding the strong same race-same sex preference and anti- other race-other sex bias, although the SCATRG-II results showed a more consistent same race over same sex preference than SCATRG-I. While the
differences between most and least favorable ratings were not all significant at the quite stringent p < .001 level (two fell short at p < .002 and p < .007), tests using binomial probabilities indicated that chance was a highly unlikely explanation for this pattern.

The next logical question then becomes: Why this pattern? It certainly makes intuitive sense; ours is a highly individualistic society, within which strong self-preferences naturally arise. As humans we form schemas to help us categorize and thus simplify our otherwise overwhelming environment. Bem (1981) argues that gender schemas gain their strength as a result of internalization of the salient and pervasive gender polarity of our culture. I would argue that this reasoning holds true for race schemas as well, especially considering the extensive history of racial conflict in the United States. The strength of these schemas coupled with the generally egocentric bias of American culture essentially ensures a strong same race-same sex group preference, which was found to be highly significant in this study.

This can also be related to a phenomenon, termed the self-reference effect (Conway et al., 2001; Foley et al., 1999; Foos, 2001); this effect is thought to render categories most similar to us as most meaningful, and thus most memorable. According to these theorists, this information is added to our autobiographical knowledge base for future reference. By extension then, categories such as race-sex will be optimally meaningful when we belong to them, and thus likely be preferred. Moreover, prejudice is commonly conceptualized as arising from fear of the unknown, as reviewed by Stephan and Stephan (2000). As an extension of this perspective, we will not only tend to prefer the groups to which we can most strongly identify (e.g. our own, optimally familiar, race-sex group), but we will likely least prefer the group most different from us, both because it is least meaningful and most difficult to identify with in its unfamiliarity. It should be noted that the children's attitudes as measured by the SCATRG-II were generally positive, and hence might not be considered prejudiced; however, they do reflect clearly differentiated group biases.
Nonetheless, it seems that the above principles would extend just as fully to the less negative concept of bias.

Furthermore, all groups showed a generally stronger same race than same sex preference, as illustrated by their tendency to rate same race children second most favorably and same sex children third most favorably. Two of the three exceptions to this rule were due to White girls and White boys, who rated same sex children second most positively for Social Distance preferences; the third exception was again White girls, who rated Black girls second highest on Academic Ability. This overall pattern and its exceptions are quite interesting in light of the generally accepted premise that children have strong same sex preferences from an early age, as supported by both the prejudice and discrimination literature (Bussey and Bandura, 1984; Emmerich & Shepard, 1984; Maccoby, 1990; Zalk & Katz, 1978). This has been found even in those studies specifically comparing sex and race biases (Fishbein and Imai, 1993; Singleton & Asher, 1977). However, the current study suggests that, at the very least, the generalization of same sex preferences should be qualified as dependent on a strong race-sex interaction and the specific attitudinal factor under investigation.

In considering why the SCATRG-II results do not support the widely accepted same sex preference in children, at least two explanations may be proffered. First, differences in the SCATRG-II results when compared to other studies of prejudice could possibly be attributed to the methods by which past researchers measured children's attitudes. First and foremost, it seems that the majority of attitude studies examined either gender or race, but not both. In these cases, when a child is asked to ascribe adjectives to girls and boys and the researcher finds that the child assigns more positive traits to her own sex, it seems logical to conclude a strong same sex preference. If the child were asked to consider a separate grouping for which she has a strong schema, such as race, it seems that she would again prefer what she identifies with and thus
knows. As a result, the strong same sex bias would have to share the limelight with a separate same race preference, and thus appear less salient than when considered alone. Taking this line of thinking one step further, if this same child were asked to consider the two groups simultaneously, I would predict that the group closest to her self-schema would rank highest, while the group farthest from her self-schema would come out on the bottom. That is exactly what the current study found.

The second explanation for the current study’s lack of support for strong same sex preferences speaks more to the results of discrimination studies. While the attitude-based prejudice literature tended to treat race and sex as essentially unrelated, discrimination researchers acknowledged that to do so was limiting. While behavioral studies such as those by Fishbein and Imai (1993) and Singleton and Asher (1977) found that children showed a stronger same sex than same race preference, this may be due to the unique characteristics of discrimination, which is measured behaviorally. I posit that this phenomenon must be considered from the framework of socialization.

From birth, children are socialized to behave according to their appropriate gender roles; this gender polarity is socially accepted and reinforced around every turn, whether considering media, parents, teachers or peers (Sadker & Sadker, 1994; Yoder, 1999). The socialization of racial differences, while equally as pervasive, is much less outwardly encouraged in our society today. This shift in the acceptability of publicly expressed racial biases has been recognized by theorists during the last two decades, and has been termed modern racism (Davidio & Gaertner, 1986; Swim et al., 1995). It has been suggested that decreases in overt expression of racial bias do not represent a decrease in racism per se, but rather a realization that racial bias is not politically correct. Therefore, segregation by race is much more noticeable and uncomfortable for the dominant group than segregation by sex, which has come to be taken for granted.
This is not to negate a modern form of sexism, as proposed by Dovidio and Gaertner (1986) and Swim, Aiken, Hall and Hunter (1995), however the people who tend to be offended by public displays of sexism are often explained away as being feminists, which is also known as the "f-word" (Yoder, 1999). While intervention strategies often target bringing racially distinct groups together in one way or another, they do not often focus on bringing girls and boys together. All the while, girls and boys integrate these messages into their gender and race schemas by assimilating information that conflicts with their schemas, rather than accommodation of the schemas to the new or discordant information (Piaget, 1954). This has been supported by studies finding that children positively evaluated the videotaped performance of a girl behaving stereotypically masculine, but then negatively evaluated her personality (McAninch, Milich, Crumbo & Funtowicz, 1996) and preferred gender-traditional over gender-deviant fictitious children (Zucker, Wilson-Smith, Kurita & Stern, 1995).

Because attitude scales such as the SCATRG-II require that the child express her opinion about all four race-sex groups, there is no ambiguity in such a task, as opposed to the Zucker et al. (1995) and discrimination study designs. These designs instead were either unobtrusive observations or requests to evaluate unnamed or fictitious individuals, such as the performance and personality of the girl in the videotape. Therefore, they were more inferential and ambiguous in nature than the SCATRG-II, which clearly identified distinct groups for the children to purposefully rate. In light of the clarity of intent inherent in this approach, it is interesting that the concerns expressed by the children, in both the current and the SCATRG-I studies, revolved around having to evaluate children of different races, but not sexes.

Although many of the children asked why I wanted to know about Black kids and White kids, not one asked why I wanted to know about girls and boys; I contend that these qualitative data speak volumes. One interpretation is that it demonstrates their understanding that discussing
racial differences is not usually acceptable, and explains their discomfort in being asked to commit to an opinion in a public environment. Further, their lack of concern over rating the sex categories, relative to their concern over race, supports the notion of blind acceptance of the differences between girls and boys. Studies have found children to recognize distinct genders as early as 18 months old (Serbin, Poulin-Dubois, Colburne, Sen & Eichstedt, 2001); interestingly, racial awareness is not thought to develop until age four (Clark, 1963; Beuf, 1977; Rotheram & Phinney, 1987).

As a result of these social forces, race becomes the more emotionally charged and salient factor when asked to consider their attitudes toward other children; and the children, upon requisite introspection, may be more likely to express same race preferences. Here, the subtler gender socialization forces take precedence over race when it comes to overt behaviors, as children are taught that racial, but not sexual, segregation is negative. Hence, the difference between the results of the current study and prior discrimination studies may be due to the current focus on attitudes, which are relatively unambiguous, as opposed to behavior, which may be attributed to situation or disposition (Ross, 1977) and is thus more ambiguous. It is even possible that discrimination researchers have been making a fundamental attribution error, by attributing their subjects’ behavior to disposition even when there was reason to believe it was situationally provoked.

SCATRG-II Versus Three Best Friends Measure

As an attempt to empirically validate the findings of the SCATRG-II, qualitative comparisons were made between it and the Three Best Friends data. Analyses of the Three Best Friends data revealed same race-same sex preferences for all four groups, which was consistent with the SCATRG-II results of same race-same sex groups being rated most positively across
groups. This consistency provides further support for a three-way interaction between race and sex of both rater (chooser in Three Best Friends) and target (chosen in Three Best Friends).

Also interesting is the finding that same sex best friend choices were second most frequent for all four race-sex groups; this pattern strongly supports the widely accepted finding of same sex preferences. This contradicts the SCATRG-II findings, which showed same race preferences to be secondary only to same race-same sex preferences in nine of twelve comparisons, while same sex preferences were tertiary. As discussed above, this could be attributed to the conceptual differences between discrimination and prejudice. Here, I would argue that the children felt less discomfort in having to identify their already-established best friends than they felt when purposefully rating their attitudes toward clearly identified race-sex groups that they may not have been asked to judge before. I base this argument from my qualitative observations of the children, who consistently voiced their discomfort with rating Black versus White children, but not girls versus boys, nor having to choose their best friends. Again, this explanation of differences between the two constructs is consistent with Schutz and Six (1996), whose meta-analysis showed them to share a low correlation.

Also discussed above, the socialization of sexism appears to be more socially accepted than racism. Sexism is generally consistent across racial/ethnic groups, and is thus arguably stronger in its insidiousness than is racial socialization. In sexism, unlike racism and other -isms, the oppressed (females) and oppressors (males) are intimately linked in socially sanctioned heterosexual relationships (Yoder, 1999). Racial prejudice, on the other hand, will more clearly differ for the oppressors (Whites) and oppressed (Blacks), who have no biological cause to interact as adults (i.e. procreation), but instead an actual tendency to voluntarily segregate. For these reasons I argue that same sex preferences may be more likely to manifest in concrete, strongly
reinforced behaviors, but less so in abstract attitudes, due to sexism's deeply ingrained and simply taken-for-granted nature.

While racial preferences would seem to follow the same tendency, it may differ due to the social unacceptability of blatantly prejudiced attitudes. This in turn may give the impression that same sex preferences are stronger when measured behaviorally [e.g. children will choose same sex play partners because they have been socialized to recognize distinct gender roles as early as the pre-verbal age of one and a half years (Serbin et al., 2001), while children will be less likely to socially segregate on the basis of race because these roles do not become part of their awareness until the post-verbal age of four (Clark, 1963)]. Further, the social unacceptability of racially biased attitudes renders race more salient when considered in terms of rating race-sex out-groups. I argue that this greater salience subsequently increases rater anxiety in a way that considering sex biases does not, and thusly overshadows those attitudinal sex biases.

Limitations

Limitations of the current study include the fact that the participant pool came from a very evenly mixed school district (essentially 50/50 for both race and sex). While this was ideal for the purposes of testing my hypotheses, the results may not generalize to more segregated populations. With regard to the scale properties specifically, the fact that the SCATRG-II started with 84 total items (with an initial seven items/race-sex group/factor) and ended with 44 items (with 4 items/race-sex group for two factors and only 3 items/race-sex group for the third) can be considered a weakness, especially because the goal was to have at least four items/race-sex group for each factor. Furthermore, only one item from SCATRG-I made it onto SCATRG-II. This lack of item transference, like the aforementioned sample specificity issues, calls into question the generalizability of the SCATRG-II to other samples.
Another limitation of the current study may be found within its use of the Three Best Friends technique as a validation measure. My intent was to compare the two measures as though they were parallel techniques; however, this may not be true. For example, while the SCATRG-II is a continuous Likert rating scale, Three Best Friends is a forced choice technique allowing the children to choose only three of their peers as best friends. This of course limits their range of best friendships and, as Fishbein (1996) argued, does not reveal much about the children not chosen as best friends. Perhaps the children had several best friends but only listed those from their neighborhoods or that they have known longest, and thus left off newer friends with whom they spend an equal amount of time.

Furthermore, using means to quantify count data may not be as accurate as when using the raw continuous data, especially when the totals are relatively small (i.e., best friends chosen from other race-sex groups). By extension then, analyzing means that are necessarily small due to forced choice and limited range may also render less meaningful comparisons. Further, because the two least frequent race-sex group best friend choices were only nominally different for three out of the four groups (see Table 5), rank order comparison of which race-sex groups were chosen third and fourth most frequently may not be very meaningful.

A related note also worth mentioning is the use of Repeated Measures ANOVA to analyze the Three Best Friends data. This could be construed as a weakness because the data are not continuous, but rather count data, and thus may violate the assumption of a normal distribution. Nonetheless, I did not have much choice because the data were not only count, but the measures were also repeated. I am unaware of a procedure that can deal with both requirements simultaneously. However, because Repeated Measures ANOVA is fairly robust to violations of multivariate normality (Stevens, 1996), this limitation is not likely to have adversely affected the results.
Applications

Applications of the current findings seem most feasible in the school environment, as the SCATRG-II is so strongly based on this setting. The knowledge that children tend to most prefer their own race-sex group and least prefer the opposite is useful to the development of intervention strategies. For example, cooperative learning techniques have shown some measure of success in reducing biases assumed to stem from lack of familiarity. These techniques are a prime candidate for overhaul according to the SCATRG-II findings. Simply pairing children up with members of another race/ethnicity may not maximize the full potential of cooperative learning. Rather, efforts to pair children with members of other race-other sex groups (i.e. Black girls working cooperatively with White boys) may boost the efficacy of these techniques. Further, because the SCATRG-II is so easily administered, it can be used to test differences between pre- and post-intervention attitudes, as well as differences between highly segregated and highly diversified school environments (an important question when considering the merits of "bussing.")

Finally, the consistency of children's reactions to the task of rating their attitudes toward the four race-sex groups' Academic Abilities and Classroom Social Skills and their own Social Distance preferences begs attention. Their overt expressions of discomfort in rating Blacks and Whites throughout the scale administrations were striking. In addition to many children asking why I wanted to know about "Black and White," others became increasingly anxious as the administration progressed as manifested clearly in their facial expressions (a few children appeared visibly distressed), several children needed tall books to block their scales from the view of others, and some children went so far as to openly state that they feared completing the scale would "make (them) prejudiced."

One feasible explanation for these reactions is that these children learned through the socialization of modern racism (Dovidio & Gaertner, 1986; Swim, Aiken, Hall and Hunter; 1995)
that to publicly discuss matters of race may be inappropriate. Indeed, while this may serve to foster a less racially tense classroom environment, it does little to educate the children on diversity issues. Perhaps providing the children with an open forum to both acknowledge and celebrate group differences and similarities will afford their racial identity development, rather than sweeping the issues under the rug, which actually characterizes the least developed stage of identity development models across races (Cross, 1971; Hardiman, 1982; Helms, 1984; Jackson, 1975; Rowe, Bennett & Atkinson, 1994).

Conclusions

The SCATRG-II was found to have solid psychometric properties, and thus to afford confidence in comparing the children's attitudes toward the four race-sex groups. The children showed an overwhelming tendency to rate their own race-sex group most favorably and the other race-other sex group least favorably. These results provide strong support for the notion of a three-way interaction between race and sex of rater-child and race and sex of target-child that has been largely neglected by past studies of children's attitudes toward out-groups. Furthermore, while one may question if differential attitudes toward the four race-sex groups may simply reflect accurate perceptions of target-group differences, the three-way interactional findings suggest otherwise (i.e. how could each group truly be both the best and the worst?).

Because the children showed generally positive attitudes toward others overall (the means only ranged from 2.81-3.70 out of a possible range of 1-4), the concept of prejudice may not apply to this participant pool. Nonetheless, the children did show an impressively consistent pattern of race-sex biases that, while not blatantly negative, pervaded beyond an explanation of chance. Therefore the results of the present study serve to add a richer understanding of children's attitudes, which may be best represented by a continuum, rather than a dichotomous prejudiced/not prejudiced model. Furthermore, while it is quite possible that the children simply
have generally positive attitudes, it seems equally as feasible that anxiety precluded some from rating the groups as negatively as they would have if, for example, they completed the scales in a non-group setting (one disadvantage to group administered attitude scales). Further empirical explorations of this question may prove useful.
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Tables and Figures

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Table 6: Mean Number of Three Best Friend Choices for Race-sex Groups as Choosers (rows) and Chosen (columns)

Figure 1: Mean Academic Ability Ratings for Race-sex Groups as Raters (ordinate) and Targets (abscissa)

Figure 2: Mean Classroom Skills Ratings for Race-sex Groups as Raters (ordinate) and Targets (abscissa)

Figure 3: Mean Social Distance Ratings for Race-sex Groups as Raters (ordinate) and Targets (abscissa)
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Table 2

SCATRG-II Factor Descriptions and Associated Scale Items

Academic Ability factor: measures perceptions of target groups’ academic abilities.

- Black girls (WG, BB, WB) are just as good in math as other kids.**
- White girls (BG, BB, WB) are not as good in science as other kids.
- Black boys (BG, WG, WB) read just as well as other kids.
- White boys (BG, WG, BB) do not know how to use the computers as well as other kids.

Classroom Social Skills factor: measures perceptions of social skills that are especially relevant to functioning in the classroom environment.

- Black girls (WG, BB, WB) raise their hands to be called on in class just as often as other kids.
- White girls (BG, BB, WB) get out of their seats during class time more often than other kids.
- Black boys (BG, WG, WB) follow the teacher’s directions just as well as other kids.
- White boys (BG, WG, BB) are not as helpful to the teacher as other kids.

Social Distance factor: measures the degree of comfortableness in interacting with out-group members as judged by degree of social intimacy in each interaction.

- I do not like sitting with Black girls (WG, BB, WB) at lunchtime as much as with other kids.
- I do not like playing on the playground with White girls (BG, BB, WB) as much as with other kids.
- I would not like to invite a Black boy (BG, WG, WB) to play at my house as much as I would like to invite other kids.

**item carried over from SCATRG-I.
Table 3

Mean Academic Ability Ratings for Race-sex Groups as Raters (rows) and Targets (columns)

<table>
<thead>
<tr>
<th></th>
<th>White Girls</th>
<th>Black Girls</th>
<th>Black Boys</th>
<th>White Boys</th>
<th>total</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black Girls</td>
<td>3.27</td>
<td>3.50</td>
<td>3.43</td>
<td>3.23</td>
<td>13.427</td>
<td>3.36</td>
</tr>
<tr>
<td>Black Boys</td>
<td>3.08</td>
<td>3.31</td>
<td>3.60</td>
<td>2.88</td>
<td>12.87</td>
<td>3.22</td>
</tr>
<tr>
<td>White Boys</td>
<td>3.40</td>
<td>3.18</td>
<td>3.36</td>
<td>3.69</td>
<td>13.63</td>
<td>3.41</td>
</tr>
<tr>
<td>total</td>
<td>13.45</td>
<td>13.44</td>
<td>13.78</td>
<td>13.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean</td>
<td>3.36</td>
<td>3.36</td>
<td>3.45</td>
<td>3.31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TARGET
Table 4

*Mean Classroom Skills Ratings for Race-sex Groups as Raters (rows) and Targets (columns)*

<table>
<thead>
<tr>
<th>RATER</th>
<th>White Girls</th>
<th>Black Girls</th>
<th>Black Boys</th>
<th>White Boys</th>
<th>Total</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Girls</td>
<td>3.66</td>
<td>3.15</td>
<td>3.09</td>
<td>3.39</td>
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<td>3.32</td>
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<tr>
<td>Black Girls</td>
<td>3.18</td>
<td>3.48</td>
<td>3.36</td>
<td>3.09</td>
<td>13.11</td>
<td>3.28</td>
</tr>
<tr>
<td>Black Boys</td>
<td>3.10</td>
<td>3.14</td>
<td>3.30</td>
<td>2.96</td>
<td>12.5</td>
<td>3.13</td>
</tr>
<tr>
<td>White Boys</td>
<td>3.36</td>
<td>2.94</td>
<td>3.05</td>
<td>3.61</td>
<td>12.96</td>
<td>3.24</td>
</tr>
<tr>
<td>total</td>
<td>13.30</td>
<td>12.71</td>
<td>12.80</td>
<td>13.05</td>
<td>51.86</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>3.33</td>
<td>3.18</td>
<td>3.20</td>
<td>3.26</td>
<td>12.97</td>
<td></td>
</tr>
</tbody>
</table>
### Table 5

**Mean Social Distance Ratings for Race-sex Groups as Raters (rows) and Targets (columns)**

<table>
<thead>
<tr>
<th>RATER</th>
<th>White Girls</th>
<th>Black Girls</th>
<th>Black Boys</th>
<th>White Boys</th>
<th>total</th>
<th>mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Girls</td>
<td>3.55</td>
<td>3.44</td>
<td>2.91</td>
<td>3.30</td>
<td>13.2</td>
<td>3.30</td>
</tr>
<tr>
<td>Black Girls</td>
<td>3.29</td>
<td>3.51</td>
<td>3.39</td>
<td>3.17</td>
<td>13.36</td>
<td>3.34</td>
</tr>
<tr>
<td>Black Boys</td>
<td>2.95</td>
<td>3.20</td>
<td>3.41</td>
<td>3.09</td>
<td>12.65</td>
<td>3.16</td>
</tr>
<tr>
<td>White Boys</td>
<td>3.18</td>
<td>2.81</td>
<td>3.31</td>
<td>3.58</td>
<td>12.88</td>
<td>3.22</td>
</tr>
<tr>
<td>total</td>
<td>12.97</td>
<td>12.96</td>
<td>13.02</td>
<td>13.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mean</td>
<td>3.24</td>
<td>3.24</td>
<td>3.26</td>
<td>3.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TARGET**

49
Table 6

Mean Number of Three Best Friend Choices for Race-sex Groups as Choosers (rows) and Chosen (columns)

<table>
<thead>
<tr>
<th>CHOOSER</th>
<th>Black boys</th>
<th>Black girls</th>
<th>White boys</th>
<th>White girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black boys</td>
<td>1.690</td>
<td>0.286</td>
<td>0.592</td>
<td>0.367</td>
</tr>
<tr>
<td>Black girls</td>
<td>0.383</td>
<td>1.467</td>
<td>0.067</td>
<td>0.950</td>
</tr>
<tr>
<td>White boys</td>
<td>1.076</td>
<td>0.226</td>
<td>1.076</td>
<td>0.528</td>
</tr>
<tr>
<td>White girls</td>
<td>0.385</td>
<td>0.723</td>
<td>0.384</td>
<td>1.385</td>
</tr>
</tbody>
</table>

BESTFRIENDS
Figure 1. Academic Skills: Three-way interaction of race and sex of target and rater.
Figure 2. Classroom Social Skills: Three-way interaction of race and sex of target and rater.
Figure 3. Social Distance: Three-way interaction of race and sex of target and rater.


Appendix A

SCATRG-I Items for Respective Four Race-Sex Targets By Factor

**Factor 1: Classroom Skills**
1. White girls (BB, BG, WB) are not good classroom leaders.
2. Black girls (BB, WG, WB) misbehave more often than other kids.
3. It is harder to get along with Black boys (WG, BG, WB) than other kids.
4. White boys (BB, BG, WG) do not give good answers in class as often as other kids.

**Factor 2: Social Distance**
5. I like doing schoolwork in groups that include White girls (BG, BB, WB).
6. I would like to eat dinner with a Black girl (WG, BB, WB) and her (his) family.
Appendix B

SCATRG-II as Administered

Tell us a little about you, but do not write your name on this scale.
Age: Male or Female? (circle one) Race: Black - White - Other (circle one)

Scale of Children's Attitudes Toward Diversity
This is called a scale. Scientists use scales to find out about what people think. This scale is to find out what you think about other kids. Some of the questions may sound a little weird, but it is important for scientists to know what you think about these things to understand your opinions. There is no right or wrong answer, so do not worry what everyone else chooses. Read each sentence and decide how much you agree with what it says. If you agree a lot, then circle 2 smiley faces. If you agree with it just a little, then circle 1 smiley face. If you disagree with it just a little, then circle 1 frowny face. If you disagree a lot, then circle 2 frowny faces. No one in your school or class will read your answers, so please be as honest as possible. If you feel uncomfortable at any time, you can stop filling out the scale with out any trouble.

Examples:
a) The Cincinnati Reds are a great baseball team.
   Here, the kid circled 1 smiley face because she agrees with it just a little. She kind of likes the Cincinnati Reds, but they are not her favorite team.
b) Strawberry ice cream is not as good as chocolate.
   Here, the kid circled 2 frowny faces because he disagrees a lot. Strawberry ice cream is his very favorite and he does not really like chocolate ice cream.

1) Black girls are just as good in math as other kids.
2) White girls follow the teacher’s directions just as well as other kids.
3) Black boys misbehave more often than other kids.
4) I do not like playing on the playground with White boys as much as with other kids.
5) I like doing schoolwork in groups that include Black boys.
6) I do not like sitting with White boys at lunchtime as much as with other kids.

7) Black girls are not as good in science as other kids.

8) White girls are not good classroom leaders.

9) Black girls read just as well as other kids.

10) White boys do not give good answers in class as often as other kids.

11) Just as many White girls are on the honor roll as other kids.

12) Black boys do not know how to use the computers as well as other kids.

13) White boys follow the teacher's directions just as well as other kids.

14) White girls misbehave more often than other kids.

15) Black boys are just as good in math as other kids.

16) Black girls get out of their seats during class time more often than other kids.

17) I like doing schoolwork in groups that include White girls.

18) Black boys are not as good in science as other kids.
19) I would like to eat dinner at the home of a Black girl and her family.

20) White boys are not good classroom leaders.

21) Black boys raise their hands to be called on in class just as often as other kids.

22) Black girls do not give good answers in class as often as other kids.

23) I would not like to invite a White boy to play at my house as much as I would like to invite other kids.

24) I do not like playing on the playground with White girls as much as with other kids.

25) Black girls follow the teacher’s directions just as well as other kids.

26) White boys misbehave more often than other kids.

27) Black boys do not give good answers in class as often as other kids.

28) White girls are not as good in science as other kids.

29) I like doing schoolwork in groups that include White boys.

30) White girls do not know how to use the computers as well as other kids.

31) I would like to eat dinner at the home of a Black boy and his family.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>32) Black girls are not good classroom leaders.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>33) I would like to invite a White boy to my birthday party just as much as I would like to invite other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>34) White girls are just as good in math as other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>35) Black boys have sloppier handwriting than other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>36) I would not like to invite a Black girl to play at my house as much as I would like to invite other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>37) White boys are just as good in math as other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>38) I would like to invite a Black boy to my birthday party just as much as I would like to invite other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>39) Black girls misbehave more often than other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>40) White girls are not as helpful to the teacher as other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>41) Black boys are not good classroom leaders.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>42) I like doing schoolwork in groups that include Black girls.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>43) White girls do not give good answers in class as often as other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>44) White boys are not as good in science as other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
<tr>
<td>45) White boys are just as good in spelling as other kids.</td>
<td>☹☹☹☹☹</td>
</tr>
</tbody>
</table>
46) I would like to eat dinner at the home of a White girl and her family.  

47) I do not like playing on the playground with Black girls as much as with other kids.  

48) I would not like to invite a Black boy to play at my house as much as I would like to invite other kids.  

49) I do not like sitting with Black girls at lunchtime as much as with other kids.  

50) White boys raise their hands to be called on in class just as often as other kids.  

51) Black boys get out of their seats during class time more often than other kids.  

52) I would like to invite a White girl to my birthday party just as much as I would like to invite other kids.  

53) I do not like playing on the playground with Black boys as much as with other kids.  

54) I would not like to invite a White girl to play at my house as much as I would like to invite other kids.  

55) White boys do not know how to use the computers as well as other kids.  

56) Just as many Black girls are on the honor roll as other kids.  

57) White girls have sloppier handwriting than other kids.  

58) White boys read just as well as other kids.
59) Just as many Black boys are on the honor roll as other kids.

60) Black girls do not know how to use the computers as well as other kids.

61) Black boys follow the teacher's directions just as well as other kids.

62) Black girls raise their hands to be called on in class just as often as other kids.

63) I do not like sitting with White girls at lunchtime as much as with other kids.

64) I would like to eat dinner at the home of a White boy and his family.

65) I would rather play at a Black boy's house than the houses of other kids.

66) Just as many White boys are on the honor roll as other kids.

67) White girls read just as well as other kids.

68) Black girls have sloppier handwriting than other kids.

69) Black girls are not as helpful to the teacher as other kids.

70) White boys have sloppier handwriting than other kids.

71) I do not like sitting with Black boys at lunchtime as much as with other kids.

72) White girls get out of their seats during class time more often than other kids.
73) I would rather play at a Black girl's house than the houses of other kids.

74) Black boys are not as helpful to the teacher as other kids.

75) White girls are just as good in spelling as other kids.

76) White boys get out of their seats during class time more often than other kids.

77) White girls raise their hands to be called on in class just as often as other kids.

78) Black boys read just as well as other kids.

79) I would rather play at a White boy's house than the houses of other kids.

80) Black girls are just as good in spelling as other kids.

81) I would like to invite a Black girl to my birthday party just as much as I would like to invite other kids.

82) I would rather play at a White girl's house than the houses of other kids.

83) White boys are not as helpful to the teacher as other kids.

84) Black boys are just as good in spelling as other kids.

THE END. Thanks for your help on my study!! 😊
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