Running head: Racial versus Gender Preferences in African American Preschoolers

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Running head: Racial versus Gender Preferences in African American Preschoolers

Racial versus Gender Preferences in African American Children from Predominantly Black or White Preschools

By

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Masters of Arts

Psychology

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2008

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An abstract submitted to the Faculty of the James T. Laney School of Graduate Studies of Emory University in partial fulfillment of the requirements for the degree of Masters of Arts in Psychology
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Abstract

Racial versus Gender Preferences in African American Children from Predominantly Black or White Preschools

By Bentley L. Gibson

The goal of this research was to examine African American children's development of gender and racial preferences, and how these variables impact sharing behavior. In experiment 1, 55 children between ages 3 and 5 (half from predominantly Black preschools, half from predominantly White preschools) were tested in a modified version of the Mamie & Kenneth Clark doll preference paradigm. All children were asked to indicate which of two dolls they preferred, would befriend and the doll that was most like them in three conditions with two dolls in each: (1) same race (Black) and different gender (boy vs. girl) dolls, (2) same gender as participant, different race dolls (White vs. Black), and (3) two identical dolls, same race and gender as participant (sharing control condition). Participants were also asked to distribute coins amongst themselves and the dolls. Results revealed no overall differences in preference by school type, age or gender. In relation to Social Identity Theory, although the majority of children identified with the Black doll, they did not have a racial in-group preference. A significant gender in-group preference was revealed. Their racial and gender preferences did not bias sharing behavior. Children shared equally with both dolls and gave the majority of the coins to themselves. Experiment 2 tested an additional 64 children in conditions allowing them to participate in all possible combinations of a Black girl doll, Black boy doll, White girl doll and a White boy doll. The sharing game was also modified, removing the participant as a reward recipient. Results revealed again no significant racial in-group preference, but a strong effect of gender in-group preference. There were no overall significant differences in racial preference between school types. There were small, yet significant differences in the number of goods participants shared between dolls. Results suggest that this may be the early onset of bias sharing behaviors based on children's preferences and that an in-group bias is not always observed in African American children.

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Introduction

One of the predominant views among developmental researchers is that young children use sex and race to categorize individuals and also to evaluate them; such that those who are similar to themselves are perceived as "good" (preferred) and those who are different are perceived as "bad". It has been suggested that by age 3 this is the lay theory that children possess. (Aboud, 1988; Brown, 1995; Davey, 1983; Hogg & Abrams, 1988; Milner, 1984; Tajfel & Turner, 1979) Social Identity Theory (SIT) was coined by Tajfel and Turner (1979) has been endorsed by social scientists in explaining prejudice and racism in adults and children. SIT posits that the basic process of social categorization is sufficient to create intergroup discrimination in favor of the in-group and against the out-group. This preference for in-group members develops as a reflection of an individual's motivation to derive self-esteem (associating more positive attributes with their group as an extension of themselves (Hogg & Abrams, 1988, Kowalski, 2003).

The goal of this study was to consider factors that lead to a lack of an in-group preference based on the social status of the in-group. This was an examination of the development of in-group and out-group identities in two domains: race and gender. There are less negative stereotypes associated with the being a female than there are negative associations about being African American. Branscombe & Smith (1990) examined the evaluations of stereotypes about both females and African Americans in college students. Participants were shown photos of job applicants in stereotype-consistent, stereotype-inconsistent, or neutral situations. After seeing photos, they responded to measures examining how they evaluated the job applicants. Results

revealed that females were evaluated using both positive and negative stereotypes, whereas

stereotypes regarding African American's were negative.

The current study examined the formations of African American preschooler's intergroup

attitudes using a revised version of the Mamie and Kenneth Clark doll paradigm (1939/1947).

African American children were chosen due to their status as an *"ethnic minority"* and the

negative stereotypes associated with their racial in-group. There is a lack of research that

examines the development of a preference for and identification with multiple social identities.

This study will also how these attitudes impact children's sharing behavior.

Review of Literature

Clark & Clark Original Studies:

To further understand the social preferences of African American children, the current

study revisited the original Clark and Clark question of racial out-group preference. Mamie and

Kenneth Clark (1939) began their investigation of the development of what they termed race

consciousness in African American preschoolers. Race consciousness was defined as the

knowledge of the self as belonging to a specific group which is differentiated from other groups

by physical characteristics (i.e.: skin tone). Their results revealed that by age 4, African

American children ceased to identify themselves with line drawings of animals and consistently

chose the drawings of either the "colored boy" or the "white boy". This original study only used

picture of males and did not measure the racial identification of African American female

preschoolers. They concluded that more refined techniques were needed in order to yield more

concrete information regarding the mechanisms young children use to form a racial

identification. Participants hesitated in interpreting themselves in terms of line drawings, leading

Clark and Clark to form new paradigms to measure the development of racial consciousness.

Clark and Clark (1947) revised their work to investigate both racial identification and

preference in African American children. Their main goal was to analyze the development of

racial identification as a function of ego development and self-awareness. Using a doll test, 250

children between the ages three and seven were presented dolls that were identical in every way

except skin color (brown with black hair vs. white with yellow hair). Participants were asked to

respond to the following request: (1) Give me the doll that you like best. (2) Give me the doll

that is nice. (3) Give me the doll that looks bad, (4) Give me the doll that is a nice color, (5) Give

me the doll that looks like a white child, (6) Give me the doll that looks like a colored child, (7)

Give me the doll that looks like a Negro child, and (8) Give me the doll that looks like you.

Regarding racial identification questions, results yield that 94 % of children chose the brown doll

when asked to give the experimenter the colored doll, 93% correctly gave the brown doll when

asked to identify the colored doll and 72 % showed an awareness of the term "Negro" by

producing the brown doll in response to question 7. There was an increase in conceptual

knowledge of the word "Negro" between ages 5 and 6.   Results revealed a White bias in Black

children across all age levels, with 67% choosing the white doll as "the best", 59% choosing the

White doll as nice, 17% indicated the White doll was bad, and 60% reporting that the white doll

as having a nice color.

Clark & Clark compared children in integrated versus segregated schools. There were no

significant qualitative differences in preference responses between children in northern

integrated schools and southern segregated schools. The only difference that was found between

the school types was that more northern children identified themselves as white than southern

participants. This study was used in the Brown vs. Board of Education court case to prove that

segregation damaged the personality development of black children. The final decision claimed

school segregation violated the Equal Protection and Due Process clauses of the Fourteenth

Amendment. The following year the Court ordered desegregation "with all deliberate speed.

After 63 years, and the purported integration of American schools, this research questions

whether integration truly changed African American children's reinforcement of inferiority. The

goal of the current study differed from the Clark & Clark study by not forcing the child to ascribe

positive or negative attributes to the stimuli, but instead asked open-ended questions, that

allowed the children to freely describe the difference and explain their preferences. It was of

particular interest that we also examine African American preschoolers' understanding of group

categorization by *both* race and gender and how it impacts their sharing behavior. The majority

of the literature has examined one or the other and few take both into consideration.

Gender Identity and In-group Preference Development

As mentioned earlier, gender is one of the first social categories children learn. Simple

discrimination tasks have been used throughout developmental psychology requiring children to

comment on the difference between picture pairs of females and males (Brown & Bigler, 2004).

These studies provided evidence that the spontaneous production of gender labels and the ability

to discriminate between genders are two aspects of early gender development. It has also been

suggested that children as young as 6 month olds are capable of discriminating between voices of

men and women (Miller, 1983). Serbin, et al., (2002) investigated 24 month olds awareness of

gender stereotype consistent versus stereotype inconsistent photographs with a looking time

paradigm. They found that the toddlers looked longer at stereotype inconsistent events (man putting on lipstick) than stereotype consistent events (woman putting on lipstick).

Social Identity Theory suggests that children develop a gender in-group bias. By 30-36 months, children display a clear preference for same sex peers (Powlishta, et. al., 1993; Serbin, et. al., 1994).   Research suggests that children as young as three show high rates of gender in-group bias in their interactions and their evaluations (Leaper, 1994; Maccoby, 1998). There have been reports of differences between girls and boys gender in-group preference. Susskind and Hodges (2007) examined 3rd -5th graders and found that found that girls perceive gender as very important and are more likely to associate positive attributes with girls and negative attributes with boys. On the other hand, the young boys perceived both males and females as having more positive than negative attributes. This suggests that girls are more inclined to in-group favoritism than boys.

Racial Identity and Out-group Preference in Minority Children

It has also been suggested that children prefer to belong to higher status than lower status groups. Nesdale and Flesser (2001) examined 5 to 12 year old's group preferences by randomly placing some in a high status group ("excellent drawers") and some in a lower status group ("good drawers"). Some participants were informed that they could switch teams if they wanted while others were not. Children were asked to respond to questions regarding how much they liked members of their group and the other group. Results revealed the amount of in-group bias depended on group status and possibly mobility. Children in the higher status groups showed the most in-group bias.

Social identity theory does not explain the phenomenon of out-group favoritism.

Sachdev and Bourhis (1985, 1987, 1991) found that those assigned to high status groups had a

bias for their in-group, while those in low status or powerless groups had an out-group bias. The

majority of the literature focuses on in-group preference, ignoring the development of an out-

group preference and/or lack of an in-group bias. Mullen, Brown and Smith (1992) conducted

one of the only meta analyses examining group status, in-group favoritism and out-group

favoritism. Their analysis revealed that while members of high status groups highly favored

their in-group, 85% of people in low-status groups had an out-group preference.

It has been well documented that children as young as 3 have an awareness of which

groups are better off and more highly regarded than others (Goodman, 1946; Radke & Trager,

1950; Davey, 1983; Vaughan, 1987; Milner, 1996; Nesdale & Flesser, 1999, Nesdale, 2001; &

Nesdale, et.al., 2004). The development of an in-group preference is not witnessed in all

children. Unlike their European American counterparts, African American children and other

ethnic minorities often exhibit an out-group racial bias or no bias at all.   (Clark & Clark, 1939,

1947, 1950; Corenblum & Annis, 1987; Corenblum, 2003). Griffith and Nesdale (2006)

examined the in-group and out-group attitudes of ethnic majority (Anglo-Australian) and ethnic

minority (Aboriginal groups) children ages 5 to 12. Their results revealed that only majority

children rated their in-group more positively than their out-group and that ethnic minority

children were equally likely to associate positive characteristics with their in-group and their out-

group.   Dominant group children (higher social status) rarely misidentify their ethnic group, but

studies have shown that members of minority groups (African Americans, Native Americans,

and Hispanics) often label themselves as a member of the dominant out-group (white) (Asher &

Allen, 1969; Corenblum & Annis, 1987; Greenwald & Oppenheim, 1968; Hunsberger, 1978;

Morland, 1966; Teplin, 1976) .

CNN recently aired the results of a pilot study conducted by Dr. Margaret Beale Spencer

of the University of Chicago investigating the skin color preferences and attitudes of 133 African

American and European American children between the ages of 5-10. Children were given

multiple measures of skin color preference. The Skin Color Opinions and Perceptions

Evaluation (SCOPE) which asked children which skin color they would most like and least like.

Children indicated their choices using color drawings of five identical young cartoon children

that differed only in skin tone (from very light (white) to very dark (black)). Participants were

asked to indicate which character was smart, dumb, mean and nice. They were also asked to

select the child they would like as a classmate, friend and playmate. Among the younger group,

when asked to "Show me the dumb child" younger African American chose between the two

darkest skin tones 50% of trials and the two lightest skin tones 41.18%.   On the other hand,

European American children chose between the two darkest children 75.86% of the time and

among the two lightest skin tones only 20.69% the cases. When asked to "show me the good

looking child", 40% of African American children chose between the two darkest skin tone and

28.57% chose between the two lightest skin tones. European American children chose between

the two lightest skin tones 82.14% of the cases, indicating a stronger in-group preference than

their African American counterparts. This investigation found that both groups of children had a

"pro-White" bias, associating positive adjectives with lighter skin. This is of great concern,

particularly for children of color who are associating negativity with those that are similar to

themselves.

Averhart and Bigler (1997) used a memory recall paradigm to examine African American children's interracial attitudes as it related to their memory for skin tone. Their goal was to see how children recalled stories about light versus dark African Americans that depicted them in either a stereotype consistent or inconsistent manner. They found that racial/skin-tone schemata had a significant affects on children's memory for information. It was easier for them to recall positive information for those with a light complexion than it was for darker individuals. This study indicates that there is a clear cognitive importance of skin tone among young children.

Impact of School Context on Development of Attitudes about Race

Dutton, et al., (1998) examined the differences in racial attitudes in children between ages 8 and 11 from different school settings. Results revealed that children from integrated schools and predominantly White schools were more likely to prefer members of their racial out-group as their friend than children in predominantly Black schools. The African American children in predominantly Black schools were more likely to choose the picture of their in-group race when asked "Which person would you like to be" than those African American children in integrated or predominantly White schools. This further emphasizes that children's ethic attitudes can vary based on their school context.   The current study attempted to verify if this difference based on school racial make-up could be detected in a younger sample of children.

Intergroup Attitudes and Sharing

By age 5 children are capable of distinguishing between positive and negative characteristics of a person and are more likely to reward positive behavior and punish negative behavior. Robbins & Rochat (in press) examined three and five year olds using a sharing game that involved the child, and two identical puppets; one characterized as stingy, the other as

generous. Results revealed that children in both age groups distributed more goods to

themselves, but only the older children discriminated between the two dolls by rewarding the

generous puppet more and punishing the stingy doll more. Another goal of the current study was

to examine whether this same paradigm could be used to examine how children share with dolls

that were both characterized as stingy but differed by race and/or gender.

Tajfel (1970) suggested that the simple act of allocating persons to groups would

undoubtedly lead to intergroup discrimination. Some studies have referred to the allocation of

large rewards to a member of one's in-group as the Maximum Ingroup Payoff.   Vaughn, et al

(1981) examined if 7 to11 year olds had an in-group bias in reward allocation and found that

they consistently shared more money with an in-group member or friend than with an out-group

member or non-friend. There is a plethora of studies on prosocial behavior in young children,

but most examine its relationship with age and sex. There is a smaller body of work on how

social cognitive variables (beliefs and opinions about groups) affect their sharing behavior.

Zinser, et al., (1981) observed that White preschoolers shared more with other White children

than African American children. According to their observations, similarity between the sex and

race impact a performer's likelihood of performing prosocial behavior. Zimmerman & Levy

(2000) provide the most recent replication of the Zinser, et al., study. They examined influences

of White preschoolers age, sex and positive racial beliefs, and their propensity to use race

relevant differences in making decisions (schematicity) on their tendencies to say they would

behave prosocially toward White or African American children. Their main finding was that

Caucasian children's awareness of racial difference and stereotypes (race schematicity) was

significantly predictive of their tendencies to engage in prosocial behaviors toward African

American children. They also found that White girls were more likely to act prosocially towards

African American children than White boys. After an extensive search of similar studies, it should be noted that this study has only been cited twice. There is a lack of research examining the sharing behavior of African American children.

Intergroup Attitudes and Sharing- The Development of Prejudice

The current study not only examined the development of group preferences but also the development of prejudice (their dislike towards members of a particular ethnic group) by examining both their sharing and punishing behavior. Nesdale & Flesser (2001) used Social Identity Theory (Tajfel & Turner, 1979) to illustrate the process that involves four sequential faces of the development of children's prejudice:

- *Undifferentiated*: Prior to 2 to 3 years old racial cues (e.g. skin color) have little to no meaning

- *Ethnic awareness*: Begins around age 3 when children can correctly distinguish and verbally label skin colors.

- *Ethnic preference*: Begins between ages 4 and 5 when children prefer their in-group; designating positive distinctiveness to in-group members without necessarily disliking the out-group.

- *Ethnic prejudice:* Emerges around 6 and 7; the transition from in-group preference to out-group prejudice; dependent upon child's identification with social group, prejudice shared and expressed by members of child's social group, and whether or not there is competition or conflict between the in-group and out-group. Differs from previous phase due to dislike of out-group.

The current study will examine if this model of the development of an in-group bias holds true for African American children and if preference and rewarding the in-group over the out-group is comparable to European-American children.

Purpose of Current Study and Hypotheses

There were three questions driving this research: 1) As in the original Clark doll studies, do African American children still show no sign of a significant in-group bias as predicted by Social Identity Theory? 2) How does the development of racial and gender group preferences compare and contrast? and 3) Are preschooler's racial and gender preferences a determinant in their sharing and punishing behavior in favor of their in-group? Two experiments were conducted in order to address these questions.

It was hypothesized that African American preschoolers would show no clear racial in-group preference. We also predicted that there would be a difference in racial preference and identity among the children in predominantly African-American preschools and those in predominantly European-American preschools as revealed in the original Clark and Clark (1947) study and in Dutton, et al., (1998) examination of older children.

Predominantly African American preschools were chosen that were composed of more than 95% African American students and faculty members. These schools emphasized an understanding and celebration of African American culture, via the classroom decorations, curriculum, and special events. It was hypothesized that this would lead to stronger in-group preference compared to African American children educated in schools with mainly Caucasian children and faculty, and with no particular emphasis on racial pride.

It was predicted that more children would relate to their gender in-group than to their racial in-group, due to the higher salience of negative stereotypes associated with their racial in-

group.   It was also expected that there would be gender differences when examining both racial and gender identity/preference. (Branscombe & Smith, 1990)

A difference between the two age groups ability to verbally describe the difference between the Black and White dolls was expected. It was predicted that older children would be better equipped than younger children to recognize and reports racial differences. This is predicted due to the earlier onset of grouping others based on gender than grouping people by race (Hirschfield, 1996/2001).

Based on Nesdale and Flesser's (2001) Social Identity Development theory, it was also predicted that African American children would consistently share equally with dolls regardless of race or gender. The children tested in this study are all still in the *Ethnic Preference Phase*. This is a point in development when children have a clear gender and sometimes racial in-group preference, but are not in the developmental stage where their behaviors reflect a bias toward another based on race and or gender (prejudice). Nesdale (2001) describes this phase in development as a favoring or preference for the in-group, but not characterized by dislike of the out-group. Although some studies have found a bias in reward allocation among European-American preschoolers, they have often been small, insignificant differences (Zimmerman, et al., 2000).

Experiment 1:

Methodology

Participants

Fifty- five subjects were tested in the present study. In general, participants were from middle to upper-middle class families in metro-Atlanta, USA and attended private schools. (Range of median household income for children in predominantly White school $32,951- 58,113; Range of median household for children in predominantly African American preschools $31,417-$56,496.). Children ranged from 38.7 months to71.8 months (M= 56.44, *SD*= 9.88) and place into two age groups consisting of the younger participants (38.7-52.9 months (3-4 yrs) and older participants (58.5-71.1 months ($4^{1/2}$-5 yrs). (See Table 1)

Table 1: Participants

Age	Predominantly European-American Schools	Predominantly African-American Schools
38.7-52.9 months (3-4 yrs)	7 boys and 6 girls=13	6 boys and 6 girls=12
58.5-71.1 months (4-5 yrs)	6 boys and 8 girls=14	10 boys and 6 girls=16

School Selection

Predominantly African-American schools had an enrollment of 95% or more African American students. These were private institutions that were composed of mainly middle-upper class children. The main characteristic of these schools were that they placed heavy emphasis on "Black Pride" through decorations (Black art), curriculum and school events. The faculty members of these schools were exclusively African American.

Predominantly European-American schools had an enrollment of approximately 80 % Caucasian children, while the other 20% was compiled of minority children. Like the predominantly Blacks schools, they were private institutions with children of middle-upper classes families. These schools did not place heavy emphasis on "Black Pride" and the decorations; curriculum and school events paid no particular attention to African American culture/history. A total of 5 schools were utilized in this study, 2 predominantly African Americans and 3 predominantly European-American schools.

Materials

The materials used for this study were dolls that varied in ethnicity and gender. The dolls used were the *Surf's Up* Barbie (White girl doll), Ken (White boy doll), Stacy (Black girl doll) and Steve (Black boy doll). They were dressed in bathing suits that made the skin and gender-specific body parts highly salient (breast, muscles). The girl dolls wore identical pink and blue bathing suits and a swimming cap cover their hair. Boy dolls wore yellow and red swimming trunks and swimming caps also covered their hair. This was necessary to minimize the chances of the child preferring a doll based on anything other than skin color or gender.

Plastic blue coins were used in a triadic sharing between the dolls and the child. The dolls and the children had clear containers as "piggy banks" making public how many coins were accumulated by all participants during the sharing game (see below).

Experimental Procedure

Approval from preschool and parental consent were obtained. During the entire study, children sat across the table from an African American female experimenter. Examinations of Social Identity theory tested Caucasian children using an experimenter of the same race as the

subjects. These studies found that the majority of these children had an in-group preference.

They used an experimenter of the same race to draw these conclusions and the present research

would like to see if the same is true for African-American children. Sedlacek & Brooks (1979)

conducted a study to examine the impact of experimenter race on racial attitudes measures. They

concluded that it is useful to use an experimenter of the same race because it *avoids calling*

attention to racial variables and allows participants to openly express their thoughts without

using socially desirable responses in fear of offending a member of the opposite race. Tests were

administered at preschools in a quiet room away from other children.

Measures:

Pre-test Assessment:

Prior to beginning the game, they were given a pretest to assess their ability to evenly

split candies between two small toy chickens and then three small toy chickens. This allowed for

an observation of the child's ability to evenly split valuable goods. The experimenter began by

saying to the child, "I have these two hungry chickens and they love to eat candy." She then

placed 8 pieces of candy in front of the child and said, "Can you please give each of the chickens

some candy to eat and make sure they both have the same to eat?" After completion of this

procedure the child was asked to repeat it with 3 chickens and 9 pieces of candy. If children

were not capable of evenly splitting good their data was not used. (Robbins & Rochat,

submitted/2009). Only 3 kids were unable to complete this task.

Preparation for Sharing Game:

In the next part of the study, the experimenter explained to the child that they were going to play a game where they could accumulate coins to buy toys and/or stickers from a make-shift store. Subjects were given the opportunity to look at a few toys, choose 3, and label them from the one they favor the most to the least favored toy.   The experimenter explained that if they accumulated a lot of coins during the game, they could win their favorite toy, but if they didn't have a lot of coins they would receive their least favorite toy. The importance of having a lot of coins was emphasized frequently to highlight how they could obtain their favorite toy (Robbins & Rochat, submitted, 2009).

Assessing Racial and Gender Preference, Friendship and Identification:

The main goal of this study was to allow the child to compare a member of their own group to a member of their out-group. Each participant was asked questions regarding three pairs of dolls and each was presented successively in a counterbalanced order: 1) two identical dolls of the same gender and race as the child (Control condition), 2) two dolls of different race but the same gender as the child (Race condition), and 3) two dolls of different genders but the same race as the child (Gender condition). (See Table 2) For each pair presented to the child the experimenter asked the following 6 questions that were mainly taken from the original Mamie and Kenneth Clark studies. Unlike the original questions asked in the Clark studies (Which one is good? Which one is bad?) The current study asked open ended questions such as:

1. "Are these dolls different?" (This will be asked for the conditions where the dolls *were* different in either gender or race)
2. "What is different about them?"
3. "Which doll do you like the most…which one is your favorite"?

4. "Why is the this one (pointing to the one they pick) your favorite?"
5. "Which one is like most of your friends?"
6. "Which one is like you?"

Table 2: Conditions by Gender

Boys	Girls
Black Boy Doll vs. Black Boy Doll (Control Condition for Sharing Game only)	Black Girl Doll vs. Black Girl Doll (Control Condition for Sharing Game only)
Black Boy Doll vs. White Boy Doll	Black Girl Doll vs. White Girl Doll
Black Boy Doll vs. Black Girl Doll	Black Boy Doll vs. Black Girl Doll

Multi-Round Triadic Sharing:

After the preference and identity questions children began the sharing game. There were three rounds of triadic (3-way) sharing; each round using different pairs of dolls (see Table 2). Unlike the Robbins & Rochat (in press) study which characterized one doll as generous and the other as a stingy; in this study both dolls were stingy. The rationale behind this was that we wanted to observe what affected children's sharing behavior more: (a) a negative characteristic (stinginess) or (b) group preference/identity. In each condition (3 conditions/2 dolls in each) the dolls took turns splitting 9 coins stingily. Each took 7 coins to themselves, gave 1 to the other doll and 1 to the child. The subject was last to split their 9 coins allowing them to observe the dolls stingy behavior before sharing. Researchers counterbalanced the position of each doll taking into consideration which doll was on the right and left side the child. The order in which the two dolls share was also counterbalanced in order to avoid order bias effects.

Costly Punishment:

As in the Robbins & Rochat (submitted/2009), after the three sharing rounds the researcher if they would like to give her one of their coins for an opportunity to take five coins away from one of the dolls. It was then emphasized that the coins taken from the child and the dolls would be out of the game stressing the costly nature of the child's decision. If they agreed to do this, they were then asked to point to the doll they wanted to punish. The experimenter offered the child the opportunity to costly punish twice in order to see if participants punished both dolls equally (one time each) or unequally punish based on the dolls race or gender.

Scoring and Analysis:

A repeated measure and between subjects mixed design was used in order to compare what each child did in the three conditions and to compare the two age groups, two school types and gender differences.

Coders watched the live video feed and noted the answers to the following dependent measure:

- The doll chosen for each identity/preferences question (racial/gender in-group or out-group)

- If the participant used either gender or racial terms to describe the difference between the dolls versus simply giving answers such as "just because"

- If children used gender or racial terms in explaining their preference and friendship versus simply giving answers such as "just because" or off topic answers

- The child distributed to themselves and the two dolls in each condition and the number of times participants punished each doll.

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A randomly selected sample of 30% of the video recordings were re-coded for reliability by a

second coder who was blind to the hypotheses. There was 97% inter-rater reliability agreement.

Results

Prior to hypothesis testing, a Chi-Square analysis examined if the location of the Black

doll (right or left) $X^2 = $ (1, N=55) = .450, p= .502; the location of the girl doll, $X^2 = $ (1, N=55)

=.201, p=.654, or the order of conditions presented, $X^2 = $ (4, N=55) =3.169, p=.530 impacted

preferences. There was no significant difference in participant's responses based on location or

order of conditions. An analysis of variance also revealed no significant difference in sharing

based on location of the doll order of the dolls sharing. (*p*>.05).

Analysis of Children's Perception of Difference

"What is different about these dolls?"

Results were coded by noting the number of children who gave race related (e.g. *"That*

one is Black and that one is White") and the number of children who gave non-race related

explanations for the difference between the dolls (e.g., *"They are different just because")*. It was

also coded by noting the number of gender related (e.g., *"That is a girl and that's a boy")* versus

those who gave non-gender related explanations for their preferences, (e.g., *"They are different*

just because"). Chi-square tests analyzed all participants and revealed a significant difference

between the number of children who gave race related (n=46) versus non race-related

explanations (n=9) of the difference in the race condition, $X^2 = $ (1, N=55) = 24.89, *p*= .000.

There was also a significant difference in the number of gender related (n=45) versus non gender

related (n=10) explanations of differences in the gender condition, χ^2= (1, N=55) = 22.273, p=.000.

School Type Comparison

Race Condition: A Chi-square analysis revealed no difference between predominantly African American preschool students and those in predominantly European-American preschools in how they explained the difference between dolls in the race condition, χ^2=(1, N=55) =.180, p=.671. The majority of children (46 out of 55)   in both settings chose to use more race related terms (*"That one is Black")* to describe the difference between the Black doll and White doll than saying they were different "*just because"* (non-race related response).

Gender condition: There was also no significant difference between school types in their explanation of difference between the boy and girl doll, (p>.05). The majority of children 49 out of 55) chose to use gender-related terms ("*That's a girl"*) rather than "*just because"* (non-gender related response) in explaining difference in this condition, regardless of their school, gender or age.

Gender Comparison

Race Condition: Chi-square test indicated there were no significant differences between boys and girls in how they explain the difference between the Black and White doll (p>.05). Girls gave race related reasons for the differences 25 out of 29 times while boys gave race related reasons 21 out of 26 times.

Gender Condition: The same results were found when examining gender differences in explanation of differences between the girl and boy doll, (p>.05). Girls gave gender related differences in this condition 23 out of 29 times. Boys gave gender related differences in this condition 22 out of 26 times.

Age Comparison

Race condition- There was a significant difference in the two age groups explanations of the racial differences between the dolls. Children in the younger group were less likely to give race related differences than those in the older group, X^2= (1, N=55) =8.188, p=.004. Younger participants were more likely to say the White doll differed from the Black doll, "*just because*", while older children explained the differences by pointing out the difference in skin color. Approximately 32% of the younger children used non-race related explanations of difference compared to the 3.3% of older children who did not use racial terms. Children in the older group gave significantly more race-related answers than non-race related, X^2= (1, N=30) =26.113, p=.000. (*See Table 5*)

Gender condition- A Chi-Square analysis was used to compare and contrast the two age group's answers concerning the gender differences between the two dolls.   Unlike the difference found between the two age groups in the race condition, there was no difference in explaining the difference between the boy and girl doll, X^2 = (1, N=55) =1.043, p=.307.   Like older participants (n=26 out of 30), the younger children (n=19 out of 25) were just as likely to explain the differences between the girl and boy doll using gendered terms (i.e. "That's a boy and that's a girl). (*See Table 6*)

Analysis of Children's Preferences

"Which one is your favorite?"

Chi-Square analyses were computed to examine children's racial preferences. Results were coded by noting if children chose their racial in-group (Black doll) or their racial out-group

(White doll). There was no significant difference in the number of children who preferred their

racial in-group (n=22) or out-group (n=33), $X^2 =$ (1, N=55) = 2.200, *p*= .138. (*See Table 7*)

Children in this study were compared to those in the Clark and Clark (1947) doll study. Their

study revealed that African American children significantly revealed a stronger racial out-group

over in-group preference with 67% of children choosing White doll. A separate Chi-Square was

used to compare the current results to the expected values (67% White preferences & 33% Black

preference). There was no significant difference in racial preferences between the results

revealed in the current study and those found in the Clark and Clark doll study (1947) study, X^2

= (1, N=55)= 1.129, *p*= .270.

Unlike racial preferences, there was significant difference between in-group and out-

group gender preferences. Children preferred their gender in-group (n=39) over their gender out-

group (n=16), $X^2 =$ (1, N=55) = 10.667, *p*= .001.

School Type Comparison

_Race Condition__:_ Difference in racial preference between the children in the two school types

were analyzed using Chi-Square tests. Contrary to our hypothesis, there was no significant

difference between the racial preferences of children in the two schools, $X^2 =$ (1, N=55,) =.012,

=.912.   When asked which doll was their favorite, 60.7% of children from predominantly black

schools preferred their out-group (the white doll), while the other 39.3% chose their in-group

(the black doll). Subjects in predominantly White schools chose the White doll approximately

59.3% of the time and the Black doll approximately 40.7%. (*See Table 8)*

Gender condition: No difference was found between school types preferences for gender in-

group vs. gender out-group (p>.05). Children in both school types preferred their gender in-

group more than their gender out-group, $X^2 =$ (1, N=55) =1.07, p= .584.

Running head: Racial versus Gender Preferences in African American Preschoolers

Gender Comparison

Race condition: The same analysis was used to examine gender differences in racial preference. When combining all participants, there was no significant difference between racial preference between girls and boys, X^2= (1, N=55) =1.751, p= .09. Although not significant, there was a trend of girls preferring their racial in-group (Black doll) less (n=8 out of 26) than boys (n=14 out of 29). When examining gender differences in racial preferences as a factor of school type ,results indicated a significant difference between boys and girls racial preferences in the predominantly Black preschools amongst the older age group, X^2 = (1,N=55)= 4.504, *p*= .034. Older African American girl participants in predominantly Black schools chose the Black doll significantly less than boys. This was not the case in predominantly White preschools, $X^{2 =}$ (1, N=55) = .054, *p*= .816.

Gender condition: The majority of children (39 out of 50) had a preference for their gender in-group. The difference in gender in-group preference between boys and girls was marginally significant, X^2= (1, N=55) =4.896, *p*=.086, there was a trend of girls preferring their gender in-group (84%) more than boys (57.7%). Boy participants showed no significant difference between in-group gender preference (n=17) and preference for the girl doll (n=11), X^2= (1, N=28) =1.286, *p*=.257. On the other hand, girl participants showed a significantly stronger gender in-group preference (n=22) over a gender out-group preference (n=4), X^2= (1, N=55) =12.462, *p*=.000. (*See Figure 9*)

Running head: Racial versus Gender Preferences in African American Preschoolers

Age Comparison

Race condition: There was no significant difference in racial in-group preference between the younger group (n=10 out of 25) and the older group (n=12 out of 30), χ^2= (1, N=55) = .000, *p*= 1.00.

Gender condition: There was no significant difference between the number of children in the older (n=23out of 30) and younger groups (n=16 out of 25) who preferred their gender in-group, χ^2= (1, N=55) = 2.422, *p* =.298.

Analysis of Explanation for Preferences

"Why is this doll your favorite?

Results were coded by noting the number of children who gave race related (e.g. *"That doll is my favorite because it's brown like me")* and the number of children who gave non-race related explanations for their preferences (e.g., *"I like it just because").* It was also coded by noting the number of gender related (e.g., *"That doll is my favorite because it's a girl like me")* versus those who gave non-gender related explanations for their preferences, (e.g., *"I like it just because").* Chi-square analyzed all participants and revealed no significant differences between the number of children who gave race related (n=30) versus non race-related explanations (n=25) for their preferences in the race condition, χ^2 = (1, N=55) = .667, *p*= .414. There was also no difference in the number of gender related (n=31) and non gender related (n=24) explanations for their preferences in the gender condition, χ^2= (1, N=55) = .891, *p=*.395.

School Type Comparison

Race condition: There was no significant difference between school types in their explanation for their doll preference in the race condition, (p>.05). Children were about evenly split in each setting between using race related and non race-related explanations for their preference.

Gender condition: There was also no significant difference in school types in explanations for doll preference in the gender condition, (p>.05). Participants were also evenly split in using gender-related terms to explain preference (e.g., "because it's a girl") and non-gender related terms (e.g., "just because").

Gender Comparison

Race Condition: There were no significant difference in the use of race-related explanation for preference between males (n=15 out of 29) and females (n=15 out of 30) in their explanations for racial preferences, $X^2 = (1= N=55) = .372$, *p*=.542.

Gender Condition: There was also no significant difference in the use of gender related explanation for preferences in boys (n= 16 out of 26) and girls (15 out of 29) explanations for their preference in the gender condition, $X^2 = (1, N==55) = .537$, p= .464.\

Age Comparison

Race Condition: There was no significant difference in the use of race-related explanations of preferences between the younger group (n=12 out of 25) and the older group (18 out of 30) in the race condition, $X^2 = (1, N=55) = 1.076$, *p*= .300.

Gender Condition: There was no significant difference in the use of gender related explanations of preferences between the younger group (n= 14 out of 25) and the older group (n= 17 out of 30) in the gender condition, $X^2 = (1, N=55)$, .002, *p* = .960.

Analysis of Friend Choice

"Which doll is like most of your friends?"

Chi-Square analyses were computed to examine children's friendship choice. Results were coded by noting if children chose their racial in-group (Black doll) or their racial out-group (White doll). There was no significant difference in the number of children who befriended their racial in-group (n=25) or out-group (n=26), $X^2 = (1, N=55) = .020, p= .889$.

Similar to the race condition, there were no significant differences in friendship choice for the girl vs. boy doll. Children equally chose to befriend their gender in-group (n=27) and out-group (n=28), $X^2 = (1, N=55) = .019, p= .891$.

School Comparison

Race condition: There was a significant difference between school types and choice of friend in the race condition, $X^2 = (1, N=55) = 6.441, p=.011$. Children in predominantly African-American preschools chose the Black doll as a friend more (18 out of 28) than those in predominantly European schools (8 out of 27). This was not the case in the gender condition. Children in both school types chose similarly between the boy and girl doll. (*See Table 10*)

Gender Condition: There was no significant difference between school types and choice of friend in the gender condition, $X^2 = (1, N=55) = 3.182, p=.102$.

Gender Comparison

There were no significant gender differences in the friendship choice between the Black and White doll (p>.05). The same results were found in the gender condition, with boys and girls equally choosing between the boy and girl doll as their friend, (p>.05).

Age Comparison

There were no significant differences between the two age groups and their choice of friend between the Black and White doll, (p>.05). Children equally chose between each doll. There was also no significant age differences in the gender condition, with children choosing equally between the boy and girl doll (p>.05).

Identity Analysis

"Which doll is most like you?"

Chi-Square analyses were computed to examine children's identification. Results were coded by noting if children identified their racial in-group (Black doll) or their racial out-group (White doll). There was a significant difference between the number of children who identified with the Black doll (n=38) versus the White doll (n=17), χ^2 = (1, N=55) = 8.018, *p* = .005.

Even stronger than racial identification, there was a significant difference in the number of children who identified with their gender in-group (n=51) versus their gender out-group (n=4), χ^2 = (1, N=55) = 40.164, *p* = .000.

School Type Comparison

Race condition: There was no significant difference in the number of children who identified with the Black doll in predominantly African American preschools (n=18 out of 28) and those in predominantly European-American schools (n=20 out of 27) in χ^2 = (1, N=55) = .617, *p*=.432. When solely examining European American schools, there was a significant difference in the number of children who identified with the Black doll (n=20) versus the White doll (n=7), χ^2 = (1, N=27) =6.259, *p* = .012. The same results were not revealed in predominantly African

American schools where children identified equally with the Black doll (n=18) and the White

doll (n=10), χ^2= (1, N=28) = 2.286, p= .131. (*See Table 11*)

Gender condition: There was no difference in in-group gender identity between children in

predominantly African American preschools (n= 27 out of 28) and those in predominantly

European-American schools (n= 24 out of 27), χ^2 = (1, N=55) =1.159, p =.282.

Gender Comparison

Race condition: There were no significant differences between boy (n= 21 out of 29) and girls

(n=17 out of 26) in their identification with their racial in-group, χ^2 = (1, N=55) = .317, p =.573.

Both genders chose their racial in-group as the doll that was most like them more than half the

time.

Gender condition: There were also no significant differences between boys (n= 26 out of 29)

and girls (n=25 out of 26) who identified with their gender in-group, χ^2= (1, N=55) = .859,

p=.254. Both girls and boys overwhelming identified with their gender in-group.

Age Comparison

Race condition: There was no significant difference between the younger (n= 17 out of 25) and

older group (n= 21 out of 30) in their identification with their racial in-group, χ^2= (1, N=55) =

.026, p= .873. When asked which doll was most like them, the majority identified with their

racial in-group (Black doll).

Gender condition: There was also no difference between the younger (n=22 out of 25) and the

older (n=29 out of 30) in their identification with their gender in-group, χ^2= (1, N=55) = 1.519,

p =.218.

Relationship between Racial Preference and Explanation of Preference

A Chi-square analysis was conducted to examine the relationship between racial preference and explanations for preferences. Results revealed a significant difference between the use of a race-related explanation for their preference between those who preferred their racial in-group vs. those who preferred their racial out-group, χ^2= (1, N=55) =4.434, p=.035. Children who preferred their racial in-group were more likely to use race related reasons (n= 16 out of 23) than non-race related reasons (n=6 out of 23). This was not the case for children who preferred their racial out-group who were about evenly split between race-related (n=14 out of 32) and non-race related explanations (n=18 out of 32). In general, children used non-race related reasons more than race related reasons.

As in the race condition, children who preferred their gender in-group were more likely to use gender related reasons (n=27 out of 39) than those who preferred their racial out-group (n=4 out of 16). There was a significant difference between the explanations of preference for children who preferred their gender in-group versus those who preferred their gender out-group, χ^2= (1, N=55) =9.296, p=.010.

Relationship between Racial Preference and Racial Identity

There was a significant relationship between racial preference and racial identity, χ^2= (1, N=55) =5.123, p=.024. Children who preferred their racial in-group were far more likely to identify with their racial in-group (n=19) than their racial out-group (n=3). On the other hand children who preferred their racial out-group were approximately evenly split in their identification with the either the Black doll (n=19) or the White doll (n=14).

Impact of Racial and Gender Preferences on Sharing Behavior

A 2 (school type) x 2 (gender) x 2 (age group) x 3 (conditions) x 2 (recipient) mixed design (repeated and between) measure analysis of variance (ANOVA) was conducted to analyze children's sharing behavior. The omnibus F-test revealed no significant interaction between any of the variables, $F (4, 44) = .781$, $p = .544$, but there was a main effect of coin recipient, $F (2, 44) = 2.562$, $p = .000$). Subjects overwhelmingly gave more to themselves in all conditions than to either of the dolls. A pair-wise comparison of the mean number of coins subjects gave to themselves and the dolls in each condition revealed no significant difference between the number of coins shared with the White and Black doll ($p > .05$), between the girl and boy doll ($p > .05$), or between the two controls ($p > .05$) On average subjects gave themselves approximately 6 out of the 9 coins in all conditions (race/gender/control).

Impact of Racial and Gender Preferences on Punishing Behavior:

There was no significant difference between the number of times children punished the Black doll ($M = .65$, $SD = .52$) vs. the White doll ($M = .80$, $SD = .60$); $t (53) = -1.48$, $p = .146$. There was one case in which a participant chose not to punish either doll. No significant difference was found between the number of times children punished the girl doll ($M = .70$, $SD = .63$) and the number of times children punished the boy doll ($M = .57$, $SD = .57$); $t (53) = 1.308$, $p = .196$. On the other hand, there was a significant in the number of times children punished control 1 ($M = .75$, $SD = .58$) vs. control 2 ($M = .54$, $SD = .54$); $t (53) = 2.362$, $p = .022$. When factoring in participants age in months, younger children punished the control 1 ($M = .95$, $SD = .62$) significantly more than control 2 ($M = .46$, $SD = .51$); $t (23) = 3.140$, $p = .005$. This difference was not significant for older children.

Discussion

The pattern of results in the present study on school type and racial preference/identity were not consistent with our prediction. It was hypothesized that there would be a difference in racial preference and identity based on school type. Although children in predominantly African American preschools were in a social setting that emphasized cultural pride through the curriculum/activities, they were NOT more likely than their counterparts in predominantly Caucasian schools to choose their racial in-group (black doll). These results are not in agreement with the results found in older children in the Dutton, et.al (1998) study which found difference in racial attitudes based on the racial composition of schools. This could possibly be due to the use of a younger sample of children.

Although a large majority identified with the Black doll, they did not show a significant racial in-group bias. Children distinguished themselves as a member of a specific social category, but this was not enough to create a bias for that same doll they identified with. There was a significant relationship between the doll that children preferred and the doll that children identified with suggesting that Social Identity Theory can be applied to children who prefer their out-group because they also identify with the out-group. This is in agreement with the argument that one of the responses to belonging to a low status group is disidentification with that group. If there is the option of mobility into the high-status groups, low-status group members will attempt to identify with that group. (Nesdale & Flesser, 2001). The results of the current study could possibly reveal the early disidentifcation of African American children with their racial in-group. This may be particularly applicable to African Americans from mid-high socio-economic status.

There was a trend of boys preferring their racial in-group more than girls. This difference was actually significant in the predominantly African American schools but not in

European American schools. This is consistent with studies that have demonstrated skin

coloration as more important to females than males due to the color ranking system that places

lighter skin women as more attractive than women with darker complexions. As with adults,

there seems to be a gender difference amongst children in importance of skin color (Bond &

Cash, 1992; Keith & Herring, 1991; Porter, 1991)

As predicted, older children were more likely to use racial terms to explain the difference

between the Black and White dolls than younger children. Quite often younger children would

simply state that the two were different without explaining why or by using non-racial terms.

With age came the ability freely categorize using race as a factor. This difference was not

detected between the two age group's explanation of the difference between the boy and girl

doll. This is in agreement with literature that suggests gender categories are formed prior to

racial categories. (Hirschfeld, 1996/2001) Older children are also better equipped with the

language and vocabulary skills to verbally distinguish between both gender and racial

differences.

Children showed no significant difference in sharing behavior when considering all

variables (school type, child's gender, age in months, and coin recipient) but there was a main

effect of coin recipient.   Both dolls shared stingily with the subject before allowing them the

chance to distribute the coins between the dolls and themselves. In this study the stingy behavior

of the dolls outweighed their gender or race. Robbins & Rochat (submitted,2009) demonstrated

that children as young as three are reluctant to share with a stingy character.   Results did

replicate those found in Robbins & Rochat with children strongly self-maximizing in order to

ensure a pay-off at the end of the game (toy from pretend store).

Children did not share in a biased manner based on their gender or racial

preference/identity. This is not consistent with Tajfel (1970) theory that children allocate larger

rewards to member of their in-group (Maximum In-group Payoff) or research revealing that

White preschoolers shared more with other White children than African American children.

(Zinser, 1981; Zimmerman & Levy 2000). The results reported could be interpreted in the

following ways: (a) the stingy character of both dolls outranked their race and/or gender, (b)

children in this age group are in the Preference Phase and not the Prejudice Phase of

development, therefore they are not punishing the out-group (Nesdale & Flesser, 2001), and/or

(c): African Americans are less likely than European American to allocate larger rewards to their

racial in-group than their racial out-group. Future research is needed to pinpoint which of these

explanations is most applicable.

Results differ from Robbins & Rochat (submitted, 2009) with no difference between the

two age groups willingness to costly punish one doll over the other. This is most likely due to

the fact that the original study used non-human like puppets that were identical in physical

features and one was characterized as "more generous" than the other. There was also no

difference in the number of times subjects chose to punish the black doll vs. the white doll OR

the girl vs. the boy. It was a rare occasion for a child to punish one doll twice. Subjects

overwhelmingly chose to punish each doll once. It can be assumed that these preschoolers were

more concerned with the stingy character of the doll than the social category they belonged to.

The present study certainly had its limitations. This study only examined preschoolers'

preference and identification with two dolls that were either the same-sex and different gender as

the participant or the same gender and different sex as the participant. Additional research is

needed that will allow all children to answer preference/identity questions about all possible

combinations of race (Black doll or White doll) and gender (boy or girl) and to see if children's

sharing behavior remains unbiased when the dolls are not characterized as stingy and the

participant is not a potential recipient of the reward.

Experiment 2:

The main goal of the second study was to examine if there is an interaction and or main

effect between gender and racial preferences in African American children. Experiment two

allowed each child to participate in 6 conditions with all combinations of race and gender.

Experiment 1 yielded results indicating the stingy reputation of the dolls had an impact

on the subjects sharing behavior, leading participants to overwhelming reward themselves. The

dolls in Experiment 2 were not characterized outside of their need for food. Children were asked

the same questions as in Experiment 1, and then asked to distribute food to the dolls in order to

see if a bias in sharing behavior could be detected when the child is not part of the game. It is

predicted that this study will replicate the main results found in Experiment 1:

1. No difference in preference or identity between the two school types

2. A slight but non-significant gender difference in racial preference

3. An age difference in explanation of differences in different race conditions but not in
   different gender conditions

4. No significant bias in sharing behavior based on race or gender of dolls

5. A stronger effect of gender in-group preference than racial in-group preference

Methodology

Participants:

Sixty-four subjects were tested in the present study. Generally speaking participants were from middle to upper-middle class families in metro-Atlanta, USA and attended private schools. Children ranged in age 37.2 months to 72 months (M=54.73, SD=10.55). They were separated into the following groups based on age, gender and school type. (See Table 3) The same schools that were selected in Experiment 1 were also used for this study.

Table 3: Participants

Age	Predominantly European-American Schools	Predominantly African-American Schools
38.7-52.9 months (3-4 yrs)	7 boys and 9 girls=16	9 boys and 8 girls=17
58.5-71.1 months (4-5 yrs)	8 boys and 7 girls=15	8 boys and 7 girls=15

Materials:

The same dolls used in Experiment 1 were also used in the current study: the *Surf's Up* Barbie (White girl doll), Ken (White boy doll), Stacy (Black girl doll) and Steve (Black boy doll) and wore the same clothing. Instead of using plastic blue coins as in the previous game, in Experiment two children were asked to distribute valuable food (goldfish) to the two dolls.

Experimental Procedure:

Assessment of Racial and Gender Preference and Identification:

During the entire study, children sat across the table from the same African American female experimenter used in Experiment 1. The main goal of this study was to allow every participant

to play with all possible pairs of the four dolls. (See Table 4 for conditions). In the previous

experiment boys and girls did not receive all possible combinations of dolls.   Instead of three

conditions, in this experiment each child participated in 6 conditions. For each pair presented to

the child the experimenter asked the following questions:

1. "Are these dolls different?"
2. "What is different about them?"
3. "Which doll do you like the most…which one is your favorite"?
4. "Why is this one (pointing to the one they pick) your favorite?"
5. "Which would you like to be your friend?" (worded differently from Experiment 1)
6. "Which one is like you?"

Table 4: Conditions

1.   Black boy vs. Black girl *Gender condition*
2.   White girl vs. White boy *Gender condition*
3.   Black girl vs. White girl *Race condition*
4.   Black boy vs. White boy *Race condition*
5.   Black girl vs. White boy *Mixed condition*
6.   Black boy vs. White girl *Mixed condition*

Sharing Game:

After responding to questions, children were asked to distribute food to the two dolls.

This game was the main modification made to Experiment 1 because it eliminated the participant

as a recipient of any reward, neutralized the dolls' characters by not making them stingy, and

used food as the reward instead of coins.   The experimenter began the sharing game by saying to

the participant, "*These two have not eaten at all day, and need you to feed them*!" After, eight

gold fish were placed in front of the dolls in a circle and the child was asked *"Can you feed*

them?" When children finished distribution of all 8 goldfish, the next pair of dolls were then

presented for assessment of preference and identity and then another round of sharing. Children

repeated this process for all 6 conditions.

Assessment of Ability to Evenly Split:

In order to not draw attention to even splitting before the sharing task, participants

completed this assessment after completing all 6 conditions. The researcher used the hungry

chickens paradigm from Experiment 1.   If participants did not divide the 8 goldfish evenly

between the two hungry chickens when first asked, the experimenter then prompted the child to

make sure each chicken had the same to eat.   If children were not capable of equal distribution

they would not be used (n=4). These children were not included in analysis.

Scoring and Analysis:

Coders watching the live video feed noted the doll chosen for each identity/preference

question, if the participant used gendered or racial terms to describe the difference between the

dolls and/or the reason why they preferred one over the other versus simply giving answers such

as "just because." Coders also noted the number of goldfish given to each doll and whether or

not the child is aware of the dolls having the same or a different amount to eat. A randomly

selected sample of 30% of video recordings were re-coded for reliability. There was 93% inter-

rater reliability agreement.

Results

Prior to hypothesis testing, we ran Chi-square tests to see if location of doll impacted preferences. There was no difference in preference based on location of the doll in any of the six conditions (p>.05) An ANOVA indicated no difference in sharing behavior based on the location of the doll in each condition, (F (1, 64) =1.049, p=.398).

As in Experiment 1, Chi-Square tests were used to examine differences between school types, gender and the two age groups. In addition, the current study compared how children answered each question between two related conditions (e.g. 2 gender conditions, 2 race conditions and 2 mixed conditions). Each condition was paired with another in order to conduct two-related samples, repeated measures McNemar tests in order to examine *only* those children who gave the same answers in both related conditions. Out of the six conditions, two were paired with each other. The related (paired) conditions were the following:

* *Gender conditions*- Different gender/same race: (1) Black girl doll vs. Black boy doll and (2) White girl doll vs. White Boy doll
* *Race conditions*: Different race/same gender: (1) Black girl doll vs. White girl doll   and 2) Black boy doll vs. White boy doll
**Mixed conditions*: Different race/different gender: 1) Black girl doll vs. White boy doll and 2) Black boy doll vs. White girl doll

McNemar's Chi-square tested the following hypotheses:

- The number of children who explained the difference between the dolls the same way in
  the two related conditions using either gender terms, racial terms or say "*just because*"
  (non-race/gender response)

- The number of children that preferred their in-group vs. their out-group in both related
  conditions
- The number of children who explained their preference the same way in the two related
  conditions using either gender terms, racial terms or say "*just because*" (non-race/gender
  response)

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- The number of children who befriended their in-group vs. their out-group in the two related conditions.
- The number of children who identified with their in-group vs. their out-group in the two related conditions.

Using a 95% confidence interval (alpha$\leq$.05) with one degree of freedom, the statistical value of 3.84 was compared to the calculated McNemar test value of matched pairs. For example, to examine if children in African American school had a stronger in-group or out-group preference, we compared those kids who chose the Black doll and those kids who chose the White doll in *both* race conditions. All values that were less than 3.84 were non-significant.

Analysis of Difference

"What is different about these dolls?"

Results were coded by noting the number of children who gave race related (e.g. *"That one is Black and that one is White"*) and the number of children who gave non-race related explanations for the difference between the dolls (e.g., *"They are different just because"*). It was also coded by noting the number of gender related (e.g., *"That is a girl and that's a boy"*) versus those who gave non-gender related explanations of difference, (e.g., *"They are different just because"*). There was a significant difference between the number of children who gave race related (n=38) versus non race-related explanations (n=23) of the difference in the Black girl versus White girl condition, $\chi^2 = (1, N=61) = 3.689$, *p*= .028. Similar results were found in the Black boy versus White boy condition, $\chi^2 = (1, N=64) = 8.672$, *p*= .003.

There was also a difference in the number of gender related (n=60) versus non gender related (n=4) explanations of differences in the Black girl versus Black boy condition, $\chi^2 = (1, N=64) = 57.066$, *p*=.000. Similar results were found in the White girl versus White boy condition, $\chi^2 = (1, N=64) = 47.610$, *p*= .000.

A significant difference was found in the number of gender related (n=49) versus race related (n=15) differences in the Black boy versus White girl condition, X^2= (1, N=64) = 13.157, p= .000. Similar results were found in the Black girl versus White boy condition, X^2 = (1, N=64) = 14.519, p=.000.

Gender Conditions: (Black girl doll and Black boy doll   vs.   White girl and White Boy)

There was no significant difference between the two schools types in their explanation of difference between the Black girl and the Black boy dolls, X^2= (1, N=63) =.984, p=.321. The same results were revealed for the related, White girl vs. White boy condition, X^2= (1, N=63) =.316, p=.574. There was also no significant difference between boy and girls explanation of difference in the Black gender condition, X^2= (1, N=63) =.921, p=.337. The same results were found in the White gender condition, X^2= (1, N=63) =2.855, p=.091. As in Experiment 1, Age group comparisons revealed no significant differences between how children explained gender differences in the Black gender condition, X^2 = (1, N=63) =.984, p=.321. The same results were found in the White gender condition, X^2= (1, N=63) = 2.953, p=.086.

McNemar's test compared the number of children that gave gender specific differences in both gender conditions (i.e., "That's a boy and that's a girl") versus those who reported non-gender related differences (i.e. *just because*). There was a significant difference in both school types, gender and age groups between the number of children who gave gender specific and those that stated the boy and girl doll were different "just because". McNemars test statistic was calculated by comparing these two figures and significance was determined by comparing the test value to 3.84, (X^2=27.0).

All children overwhelming described the dolls using gender specific language in both conditions. (*See Table 12)* 55 out of the 58 children analyzed used gender related reasons to explain the difference between the dolls in both gender conditions.

Race Conditions: (Black girl doll and White girl doll vs. Black boy doll and White boy doll)

Chi-square analyses revealed no overall significant difference between school types in explanation of difference between the Black girl doll and the White girl doll, $X^2 = (1, N=64) = 2.018$, $p=.155$. The same results were revealed in the Black boy doll and White boy doll condition, $X^2 = X^2 = (1, N=64) = 2.157$, $p=.142$. There was also no significant difference between the boys and girls explanation of racial difference in the girl race condition, $X^2 = (1, N=63) = 1.194$, $p=.275$. The same results were found in the explanation of racial difference in the boy race condition, $X^2 = (1, N=63) = 2.699$, $p=.100$. There was an age difference found in the explanation of racial difference in the girl race condition, $X^2 = (1, N=60) = 16.941$, $p=.000$. The same results were found in the boy race condition, $X^2 = (1, N=60) = 11.572$, $p=.001$. Older children were more likely than younger children to use race related terms.

McNemar's test value was also calculated to analyze whether children consistently gave race specific explanations for difference (i.e. "That one is black and that one is white") or simply reported that the dolls were different "*just because*". When examining all children, a significant difference was found between the number of children that reported racial differences in these two related conditions (n=37) versus those who gave no specific reason for the difference (n=18), ($X^2=6.56$).

Children in African American preschools gave significantly more race related reasons for difference in both race conditions (n=21) than general, non-race related reasons (n=6), (X^2

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=8.33). On the other hand, children in European American schools were equally split in their use

of race (n=16) and non-race related explanations (n=12) for the difference between dolls (χ^2

=0.07).

There was a significant difference in girls and boys explanations of racial differences.

Girls did not give significantly more race-related than non-race related differences (χ^2 = 0.61)

while boys were more likely to report the difference between the dolls as race-related than non-

race related (χ^2 = 7.75).

There was a significant difference between the two age groups in their explanation of racial

difference. Older children significantly gave more race specific differences (n=24) than non-race

related differences between the dolls (n=2), (χ^2= 18.61). (*See Table 13)* This was not the case

for younger children (χ^2=0.57). (*See Table 14)*

Mixed Conditions: (Black girl doll vs. White boy doll and Black boy doll vs. White girl doll)

Chi-square analyses revealed no significant difference between school types in

explanation of difference between the Black boy doll and the White girl doll, χ^2= (1, N=64) =

.809, *p*=.368. The same results were revealed in the Black girl doll and White boy doll

condition, χ^2= (1, N=64) = .223, *p*=.667. There was also no significant difference between

boys' and girls' explanation of difference in the Black boy doll and White girl doll condition, χ^2

= (1, N=64) = .912, *p*=.340.   There was no significant difference between younger and older

children's explanation of difference in the Black boy doll and White girl doll condition, χ^2 = (1,

N=64) = .052, *p* = .820. On the other hand, there was a significant difference revealed between

age groups in the Black girl doll and White boy doll condition.   Older children (n=21) gave

significantly more race related explanations than younger children (n= 3), χ^2 = (1, N=64) =

5.352, p = .021. This mimicked the age difference found in the race conditions, while the Black

boy and White girl condition mimicked the gender conditions.

McNemar's analyses were used to examine consistency of participant's explanation of

differences across both mixed conditions. The usage of gender related differences was compared

to the usage of race related explanations of difference. There was a significant difference in all

participants usage of gender specific explanations (n=37) over racial explanations (n=10), (X^2

=15.18).

Analysis of Preference

"Which one is your favorite?"

Chi-Square analyses were computed to examine children's racial preferences. Results

were coded by noting if children chose their racial in-group (Black doll) or their racial out-group

(White doll). There was no significant difference in the number of children who chose the Black

girl (n=30) versus the White girl (30), X^2= (1, N=64) = .065, p= .799. Similar results were

revealed in the Black boy (n=34) versus White boy (n=30) condition, X^2= (1, N=64) = .397, p=

.799. As in Experiment 1, a separate Chi-Square was used to compare the current results to the

Clark and Clark (1947) expected values (67% White preferences & 33% Black preference).

There was a significant difference between out-group preference in the Black girl vs. White girl

condition (41.5%) and Clark & Clark's study (67%), X^2 = (1, N=64) = 9.715, p= .002. Similar

results were found in the Black boy vs. White boy condition, X^2= (1, N=64) = 4.839, p= .028.

Children in this study has a significant lower out-group preference than found in the original

Clark & Clark study (1947), yet children did not show a significant in-group preference as

predicted by Tajfel and Turner (1979).

Gender Condition: (Black girl doll and Black boy doll vs. White girl doll and White boy doll)

Chi-Square analyses revealed no overall differences between school types in the preference for the Black girl vs. Black boy doll, $x^2 = $ (1, N=63) =.148, *p*=.701. This was also found in the White girl and White boy condition, $x^2 = $ (1, N=63) =1.880, *p*=.170. There was a significant difference between boys and girls preference for the Black girl vs. Black boy condition, $x^2 = $ (1, N=63) =24.134, *p*=.000. Participants significant selected their gender in-group. The same results were revealed in the White girl vs. White boy condition, $x^2 = $ (1, N=63) =11.390, *p*=.001. There was no age difference in preference for the Black girl vs Black boy, $x^2 = $ (1, N=63) =3.175, *p*=.075.

McNemars test revealed a gender difference with girls significantly choosing their gender in-group (girl doll) in both conditions (n=21 out of 31, x^2=15.70) and boys choosing the boy in both conditions doll (n= 15 out of 28, $x^2 = $ 6.36). The test value calculated for girls was higher than boys indicating a stronger gender in-group preference. Which indicates a stronger gender in-group preference for girls than boys. (*See Tables 15-16)*

A significant preference for the girl doll was revealed amongst younger children in the two related gender conditions (x^2=4.17), however those in the older age group did not show significant preference for the girl over the boy($x^2 = $ 0.22).

Race Conditions: (Black girl doll and White girl doll   vs. Black boy doll and White boy doll)
Chi-Square analyses revealed no overall difference between school types in the preference for the Black girl and the White girl, $x^2 = $ (1, N=63) =.000, *p*=.987. This was also found in the Black boy and White boy condition, $x^2 = $ (1, N=63) =.136, *p*=.712. There was no significant difference between boys and girls preference for the Black girl and the White girl, x^2 = (1, N=63) =.594, *p*=.441. The same results were revealed in the Black boy vs. White boy

condition, $\chi^2 =$ (1, N=63) =.136, p=.712. There was no age difference in preference for the Black

girl vs the White girl, $\chi^2 =$ (1, N=63) =.399, p=.527. The same results were found in the Black

boy vs. White boy doll, $\chi^2 =$ (1, N=63) =.053, p=.818. Binomial analyses revealed no significant

difference in preference for the Black girl doll vs. White girl doll (p= .899) or for the Black boy

vs. the White boy (p= .615).

There was no significant racial in-group preference. McNemar's test revealed that

children were equally likely to choose their racial in-group and racial out-group in both

conditions in African American preschools, (χ^2=.152). Similar results were found in the

predominantly White preschools. (χ^2=0). (*See Tables 17-18)*

McNemar's test revealed no significant difference in girls preference for their racial in-

group versus their racial out-group, (χ^2=.059). Similar results were found in male participants,

revealing an equal preference for the Black doll and the White doll in both race conditions, (χ^2

=.391). (*Tables 19-20)*

McNemar's test revealed no significant difference the younger age group's preference for

their racial in-group vs. their racial out-group,(χ^2=.043) Similar results were revealed in the

older age group, (χ^2= .25).

Mixed Conditions (Black boy doll and White girl doll   vs. Black girl doll and White boy doll)
Chi-Square analyses revealed no overall difference between school types in the

preference for the Black boy vs the White girl, $\chi^2 =$ (1, N=63) =1.942, p=.263. This was also found

in the Black girl and White boy condition, $\chi^2 =$ (1, N=63) =2.410, p=.121. On the other hand,

there was a significant difference between boys and girls preference for the Black boy and the

White girl, $\chi^2 =$ (1, N=63) =8.453 p=.004. Participant had a gender in-group preference. The

same results were revealed in the Black girl vs. White boy condition, $\chi^2 =$ (1, N=63) =9.856,

p=.002. There was no age difference in preference for the Black boy vs. the White girl or for the

Black boy vs. White boy doll, (p>.05).

McNemars test value was calculated twice when examining this related pair. When

calculating the test value for all kids there was no difference in those who consistently chose the

Black doll and those who consistently chose the White doll (X^2= 1. 96). There was also no

difference in the number of children who preferred the girl doll in both conditions and those who

preferred the boy doll (X^2=1.78). The same results were found for children in both age groups

and those in both school settings.

There was a significant gender in-group preference girl in participants (X^2 = 11.84), but

not in boy participants (X^2= 2.88).   (*See Tables 21-22*) There was not a racial in-group

preference for girls (X^2=1.6) or for boys (X^{22}=0.60). (*See Tables 23-24*)

Explanations for Preference

"Why is that one your favorite?"

Results were coded by noting the number of children who gave race related (e.g. *"That

doll is my favorite because it's brown like me")* and the number of children who gave non-race

related explanations for their preferences (e.g., *"I like it just because").* It was also coded by

noting the number of gender related (e.g., *"That doll is my favorite because it's a girl like me"*)

versus those who gave non-gender related explanations for their preferences, (e.g., *"I like it just

because"*). Chi-square analyzed all participants and there was a significant difference between

the number of children who gave race related (n=37) versus non race-related explanations (n=20)

for their preferences in the Black girl vs. White girl condition, X^2 = (1, N=57) = 5.070, *p*= .024.

No significant differences between race related and non-race related explanations were revealed in the Black boy vs. White boy condition, X^2 = (1, N=56) = 2.571, *p*= .109.

Chi-square analyzed all participants and no significant difference between the number of children who gave gender related (n=34) versus non gender-related explanations (n=27) for their preferences in the Black girl vs. Black boy condition, X^2 = (1, N=61) = .803, *p*= .371. Similar are results were found in the White girl. Vs White boy condition, X^2 = (1, N=57) = .158, *p*= .619.

There was no significant difference between the number of children who gave gender related (n=19) versus race-related explanations (n=12) for their preferences in the Black girl vs. White boy condition, X^2 = (1, N=31) = 1.581, *p*= .209. Similar are results were found in the Black boy vs. White girl condition, X^2 = (1, N=32) = .125, *p*= .714.

Race conditions (Black girl doll and White girl doll vs. Black boy doll and White boy doll)

Chi-square analyses revealed no significant difference in explanation of preference between school types in the Black girl vs. White girl condition, X^2 = (1, N=63) =3.384, *p*=.336. Similar results were found in the Black boy vs White boy condition, X^2= (1, N=63) =3.190, *p*=.336. There was no significant difference between genders in their explanation of preference in the Black girl doll vs. White girl doll condition, X^2= (1, N=63) =5.152, *p*=.161. Similar results were found in the Black boy doll vs White boy doll condition, X^2= (1, N=63) =6.692, *p*= .082. On the other hand, there was significant difference between age groups in their explanation of preference for the Black girl vs the White girl, X^2= (1, N=63) =10.013, *p*= .018. Younger children explained their preference using non-race related explanations such as *"just because"* (n=24 out of 33) significantly more than older children (n=12 out of 30).

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Gender condition (Black girl doll and Black boy doll vs. White girl doll and White boy doll)

Chi-square analyses revealed no significant difference in explanation of preference between school types, gender or age groups (p>.05). ($\chi^2 \leq 3.84$) Children equally explained their preference using gender specific terms ,*"I like that one because it's a girl"* (n=19) and simply saying *"That my favorite just because it is"* (n=21).

Race condition (Black girl doll and White girl doll vs. Black boy doll and White boy doll)

When examining all children, there was a significant difference in the number of children who explained their preference saying "just because" in both race conditions and those who used racial terms to explained their preference (i.e. *"That one is my favorite because it's Black"*). Children significantly answered using "just because" more than using racial terms in all groups ($x^2 \geq 3.84$), except for boys and children in the older age group who did not differ in the number who consistently used racial terms and those who explained their preference using "just because."($\chi^2 \leq 3.84$)

Mixed conditions (Black girl doll and White boy doll vs. Black boy doll and White girl doll)

There was no significant difference between the number of children who consistently explained their preference in both mixed conditions in gender terms versus racial terms. Approximately the same number of children chose to explain their preference in terms of gender in both mixed conditions as those who explained their preference in terms of race regardless of school type, gender or age. ($\chi^2 \leq 3.84$)

Children equally explained their preference using gender related terms and simply saying *"That my favorite just because it is."* ($\chi^2 \leq 3.84$). On the other hand, children significantly

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explained preference using *"just because"* (n=25) more than race related terms (n=9) (χ^2 = 7.52).

<div align="center"><u>Analysis of Friendship Selection</u></div>

"Which Doll would you like to be your friend?"

<u>*Gender Condition (Black girl doll and Black boy doll vs. White girl doll and White boy doll)*</u>

Chi-square analyses only revealed a significant gender difference in friendship in the Black girl vs Black boy condition, $\chi^2_{(1, N=63)}$ =17.052, *p*= .000. Children significantly befriended their gender in-group. Similar results were found in the White girl vs White boy condition, $\chi^2_{(1, N=63)}$ =11.889, *p*= .003. McNemar's test also revealed a gender in-group preference for friendship choice. Girls significantly chose the girl doll in both conditions (n=17) more than the boy doll (n=4, χ^2=8.04). Similarly, boy participants chose to befriend the boy in both conditions (n=14) more than the girl doll (n=4, χ^2=5.55).

<u>Race Condition: (Black girl doll and White girl doll vs. Black boy doll and White boy doll)</u>

Chi-square analysis revealed no significant difference in friendship selection between school types in the Black girl doll vs the White girl doll, $\chi^2_{(1, N=63)}$ =2.398, *p*= .494. Similar results were found in the Black boy doll vs White boy doll condition, $\chi^2_{(1, N=63)}$ =3.972, *p*=.137. Correspondingly, there was no significant difference in friendship choice in the Black girl doll vs White girl doll between genders or age groups, ($\chi^2 \leq 3.84$). The same results were found in the Black boy doll vs White boy doll condition, ($\chi^2 \leq 3.84$).

There was no difference in the number of children who consistently chose the Black doll in both conditions versus those who chose the White doll in both conditions. Children in all

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groups (school, gender, and age) showed an equal friendship preference for the Black doll and the White doll ($\chi^2 \leq 3.84$).

Mixed Conditions: (Black girl doll and White boy doll vs. Black boy doll and White girl doll)

Chi-square analysis revealed a significant gender difference in friendship choice in the Black boy vs. White girl condition, $\chi^2 = (1, N=63) = 8.453$, $p = .004$. Similar results were found in the Black girl vs. White boy condition, $\chi^2 = (1, N=63) = 11.889$, $p = .003$. Children significantly chose their gender in-group in this task. There was no difference between school types or age groups, ($\chi^2 \leq 3.84$).

McNemar's test revealed no significant difference in friendship preference for the Black vs. the White doll or the girl vs. the boy doll was found ($\chi^2 \leq 3.84$).   Children in predominantly African American schools chose the black doll in both conditions (n=12) significantly more than they who chose the white doll (n=3, $\chi^2 = 5.40$). This was not the case for children in predominantly White schools ($\chi^2 \leq 3.84$).   A significantly larger number of girls chose to befriend their racial in-group in both conditions more than their racial out-group ($\chi^2 = 5.44$) and their gender in-group more than their gender out-group ($\chi^2 = 4.26$). Boy participants equally befriended their racial and gender in-group and out-group as did children in both age groups ($\chi^2 \leq 3.84$).

Analysis of Identity

"Which one is most like you?"

Chi-Square analyses were computed to examine children's identification. Results were coded by noting if children identified with their racial in-group (Black doll) or their racial out-group (White doll). There was no significant difference between the number of children who

identified with the Black girl doll (n=35) versus the White girl doll (n=25), x^2= (1, N=60) = 1.667, p= .197.   On the other hand, there was a significant difference between the number of children identified with the Black boy doll (n=43) vs. the White boy doll (n=19), x^2= 3.612 (1, N=62) = 9.290, p= .029.

There was a significant difference in the number of girls who identified with their gender in-group (n=26) versus their gender out-group (n=5) in the Black girl vs. Black boy condition, x^2= (1, N=31) = 14.226, p= .000. Similar results were revealed in the White girl vs. White boy condition, x^2= (1, N=31) = 27.968, p= .000. There was a significant difference in the number of boys who identified with their gender in-group (n=30) versus their gender out-group (n=3), x^2= (1, N=31) = 22.091, p= .000. Similar results were revealed in the White girl vs. White boy condition, x^2= (1, N=33) = 14.227, p= .000.

There was a marginally significant difference between the number of children who identified with the Black boy (n=39) versus the White girl (n=24), x^2= (1, N=63) 3.571, p= .059. On the other hand, children did significantly identify with the Black girl (n=41) more than the White boy (n=23), x^2= (1, N=64) 5.063, p= .024.

There was no significant difference between the number of girl participants who identified with the Black boy (n=12) versus the White girl (n=18), x^2= (1, N=30) =1.200, p= .273. Results differed in the other mixed condition with girls significantly identifying with the Black girl (n=26) more than the White boy (n=5), x^2= (1, N=31) 14.226, p= .000. Similarly, boys significantly identified more with the Black boy (n=27) more than the White girl (n=6), x^2 = (1, N=33) =13.364, p= .000. There was no significant difference between the number of boy

participants who identified with the Black girl (n=15) versus the White boy (n=18), $X^2 =$ (1,

N=33) =.273, p= .602.

Gender Conditions: (Black girl doll and Black boy doll vs. White girl doll and White boy doll)

Chi-square analyses revealed no significant difference between school types in their

identification with the Black girl vs. the Black boy, X^2= (1, N=63) =.277, p= .599. Similar

results were found in the White girl vs. White boy condition, X^2= (1, N=63) =5.534, p= .169.

There was also no significant difference between age groups in their identification with the Black

girl vs. the Black boy, X^2= (1, N=63) =2.022, p= .550. Similar results were found in the White

girl vs. White boy condition, X^2= (1, N=63) =3.60, p= .308.   A significant gender difference

was revealed in the Black girl vs. Black boy condition, X^2= (1, N=63) =36.071, p= .000.

Participants significantly identified with their gender in-group more than their gender out-group.

Similar results were found in the White girl vs. White boy condition, X^2= (1, N=63) =10.820, p=

.013.

McNemar's test revealed gender differences in these conditions.   There was a

significant gender in-group bias with girl participants choosing the girl doll in both gender

conditions (n=18) more than the boy doll (n=2, X^2 =4.80). Boys significantly identified with the

boy doll in both gender conditions (n=20) more than the girl doll (n=3), (X^2= 12.57). McNemar

analyses revealed no significant differences were revealed between school types or age in

month's groups ($X^2 \leq$ 3.84).

Race Conditions :(Black girl doll and White girl doll vs. Black boy doll and White boy doll)

Chi-square analyses revealed no significant difference between school types in their identification with the Black girl vs. the White girl, $X^2 = $ (1, N=63) =.069, p= .793. Similar results were found in the Black boy vs. White boy condition, $X^2 = $ (1, N=63) =.992, p= .319. There was no significant difference between age groups in their identification with the Black girl vs. the White girl doll or the Black boy doll vs. the White boy doll, (p>.05). There were no significant gender differences revealed, (*p*>.05).

Examining all children, McNemar's test showed a significant difference between children who identified with the Black doll in both conditions (n=27) versus those who identified with the White doll in both conditions (n=12) (X^2=5.77). The majority of children identified with their racial in-group in both conditions.

When only analyzing girl participants, no significant difference was found between those we consistently identified with the Black doll (n=12) and those who identified with the White doll (n=8) in both conditions.   ($X^2 \leq$ 3.84) On the other hand, there was a significant difference between boy participants who identified with the Black doll (n=12) and those who identified with the White doll (n=4) (X^2=8).

Children in the predominantly African American schools significantly identified with the Black doll in both race conditions (n=14) more than the White doll (n=5) (X^2=4.26). This was not the case for children in predominantly European American schools ($X^2 \leq$ 3.84). No significant age differences in group identity were revealed ($X^2 \leq$ 3.84).

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Mixed Conditions: (Black girl doll and White boy doll vs. Black boy doll and White girl doll)

Chi-square analyses revealed a significant gender identification in the Black girl vs. White boy condition, $\chi^2 =$ $_{(1,}$ N=63) $=$12.719, $p=$ .002. Similar results were found in the Black boy vs. White girl condition, $\chi^2 =$ $_{(1,}$ N=63) $=$10.247, $p=$ .001. Participants significantly identified with their gender in-group more than their gender out-group.

McNemar's analysis examined all children and found a significant difference between those who identified with the Black doll and those who identified with the White doll in both conditions ($\chi^2 =$ 4.26). More children identified with the Black doll than with the White doll.

There was a significant difference between the number of children who consistently identified with the Black doll over the White doll do in both conditions in predominantly African American schools ($\chi^2 =$ 6.36). The same results were not replicated for children in predominantly European American schools ($\chi^2 \leq$ 3.84).

Boys significantly identified with the Black doll more than the White doll ($\chi^2 =$ 5.4) and with the boy more than girl doll ($\chi^2 =$ 8). Female subjects showed a slightly different pattern. While girls subjects did significantly identify more with the girl than the boy doll ($\chi^2 =$ 9.94), there was no difference in the number of girls who consistently chose the Black doll in both mixed conditions versus White doll ($\chi^2 <$ 3.84).

Impact of Racial and Gender Preferences on Sharing Behavior

A 6 (condition) x 2 (doll recipient) x 2 (school type) x 2 (gender) x 2 (age group) mixed design (repeated and between) measure analysis of variance (ANOVA) was conducted to analyze if children shared equally between dolls. The omnibus F-test revealed no significant interaction

between any of the variable, $F(2, 54) = .870$, $p = .425$, but there was a main effect of doll recipient, $F(2, 54) = 5.451$, $p = .023$).

A pair-wise comparison was conducted of the total number of goldfish participants distributed to each doll in comparison to all other dolls. There was a significant difference in goldfish distribution when the doll was a girl. Participants tended to give .224 more goldfish to the White girl doll than to the Black girl doll, ($p = .016$). On the other hand, when the doll was a boy, children gave the Black boy .219 more goldfish than to the White boy, ($p = .019$). Results also indicated that when the doll was White, children gave .375 more goldfish to the White girl over the White boy ($p = .012$). Although the amounts were small, the results were significant.

Discussion

The main goal of this second experiment was to see which category (race or gender) held more value to African American children. As predicted children overwhelming showed a gender in-group preference, but the same was not replicated when examining their racial preference. Mixed conditions (i.e. Black girl doll and White boy doll) revealed that children significantly favored their gender in-group over their racial in-group.

As shown in Experiment one, this study also demonstrated a developmental shift in the explanation of difference between dolls of different skin-tones between the ages of 3-5. Children in the older age group were more likely than younger children to explain the difference between the dolls in terms of *"Black"* and *"White"*. In both race conditions, younger children consistently explained the difference between the dolls in general terms (i.e. *"They just are different just because"*).

Contrary to Experiment 1, there was no difference in friendship choice in the race conditions based on school type. This is most likely due to the difference in the wording of the questions. While Experiment 1 asked children which doll was like most of their friends, Experiment 2 asked children which doll they wanted to be their friend. The mixed conditions did reveal a significant difference in school type with children in African American schools befriending their racial in-group more than their racial out-group in both conditions. Children in European American schools chose equally between the two dolls. Our hypothesis was also confirmed in Experiment two, revealing a gender in-group friendship bias for both girl and boy participants.

As in Experiment 1, when analyzing all children the majority identified with the Black doll. A difference between the two school types was detected between the number children who identified with their racial in-group in both race conditions versus their racial out-group. Only children in predominantly African American schools consistently identified with the Black doll, while those in predominantly European American schools were evenly split. This study is in agreement with Dutton, et al. (1998) examination of the differences in racial attitudes in children between ages 8 and 11 from different school settings. In their study, African American children in predominantly Black schools were more likely to choose the picture of their in-group race when asked "Which person would you like to be" than those African American children in integrated or predominantly White schools. This also is in agreement with the original Clark and Clark (1947) study which demonstrated children in segregated schools identified with the Black doll more than children in integrated schools.

Gender differences prevailed (particularly in the mixed conditions), confirming a stronger racial in-group bias in boys than girls and a stronger gender in-group bias in girls than boys. There were gender differences detected in the mixed condition. While girls consistently identified with their gender in-group they did not do the same with their racial in-group. Boy participants identified more with both the racial in-group (Black doll) over their racial out-group (White doll) and their gender in-group (boy doll) over their gender out-group (girl doll). Once again, this is in agreement with studies that have demonstrated skin coloration as more important to females than males due to the color ranking system that places lighter skin women as more attractive than women with darker complexions. (Bond & Cash, 1992; Keith & Herring, 1991; Porter, 1991)

Experiment 2 allowed for an observation of children's behavior when they were not a recipient in the sharing game and when the dolls were not characterized in a stingy nature. This new method did replicate the results of the first study by showing no interaction between school type, participant gender, participant age, and doll gender or doll race. Unlike the first study, there was a main effect of doll race and doll gender. Although not by large amounts ($\leq .375$), children did share more goldfish with the White girl over the Black girl. These results changed when examining the Black boy doll versus the White boy doll with the Black boy doll being rewarded more goldfish than the White boy doll. There was also a slight bias in feeding the White girl doll more than the White boy doll. These results are more similar to the findings reported by Zinser, et al., (1981) and Zimmerman & Levy (2000) examining White preschoolers. As in their study, these differences were small. The main difference between previous studies and the current experiment is that children in this study did not always share significantly more with their in-group.

Zimmerman and Levy (2000) demonstrated that although White children shared more with their in-group, White girls show more prosocial behaviors towards Black children than White males. This could explain the slight bias seen in this sample of African American children in favor of the White girl over the White boy. Slight in-group favoritism was observed in how the children fed the Black boy doll versus the White boy doll. However, an out-group bias was revealed in the Black girl doll versus White girl doll condition. Future research is needed to examine these differences.

General Conclusions

The original Clark studies reported that 67% of the African American children thought the White doll was "the best". These current experiments revealed that the doll test paradigm still reveals a lack of an in-group racial preference among African American children. Experiment 1 revealed no significant difference between African American children's racial preferences in the current study and the original Clark and Clark (1947) study. On the other hand, although participants in Experiment 2 also did not show a significant racial in-group preference, they did show a stronger preference for the Black doll than children in Experiment 1 and the original doll study.

While Social Identity Theory can account for significant gender in-group preferences it can't account for the lack of a racial in-group preference observed in African American children. The difference in in-group preference between the two social categories could be accounted for by Branscombe and Smith's (1990) study of hiring practices which demonstrated that there are less negative stereotypes associated with the domain of being a female than there are negative associations about being Black. The current study implies that there may be an early

development of the understanding that there are more negative stereotypes associated with being

a racial minority than are associated with being a female. These results also highlight this by

revealing that girl participants have a stronger gender in-group preference than boys. Nesdale

and Flesser (2001) argue that children prefer to be a member of higher than lower status groups.

The stronger gender in-group preference exhibited by females in comparison to males indicates

that girls do not perceive being a member of their gender group as being attached to a lower

status than being a boy.

Predominantly African American preschools were chosen that were composed of more

than 95% African American students and faculty members. These schools emphasized an

understanding and celebration of African American culture, via the classroom decorations,

curriculum, and special events. It was hypothesized that this would lead to a stronger in-group

preference compared to African American children educated in schools with mainly Caucasian

children and faculty, and with no particular emphasis on racial pride. The lack of difference

between the two school type's preferences may be due to the fact that a preschool's race make-

up is not the main factor influencing children's development of a racial in-group preference.

Future studies should examine other factors that may play a larger role in shaping the preferences

of African-American children (e.g. media). One theory is that regardless of the racial make-up of

a school, children's self-image is affected by the ways in which they see themselves in both

verbal and visual texts such as picture books, television, magazine images, and movies (Hurley,

2005; Spitz, 1999; Yeoman, 1999). These are common images seen by children in both school

types. These results uniquely contribute to the literature because they reveal the lack of influence

of familiarity on the development of preferences.

Both studies demonstrated in-group biases vary according to the child's gender. Future research needs to further investigate why girls show a stronger gender in-group preference than boys. Further analysis of the stronger racial in-group preference revealed in boys than in girls is also needed. It is hypothesized that girl's images of "beauty/attractiveness" may be influencing their racial out-group preference. Their stronger desires for lighter skin and the purchasing of products that straighten their hair are not as much a part of the African American male experience. (Bond & Cash, 1992; Keith & Herring, 1991; Porter, 1991). The current research may have implications in understanding the gender differences in other areas (e.g. academics) that are observed in African Americans during later childhood and early adulthood. The majority of research examining gender differences in racial preferences has investigated the attitudes and behaviors of adults. The current research conveys that there is an early development of gender differences in skin-tone preference. It would be interesting to conduct future research that attempts to disentangle the concept of race and skin complexion in the development of children's preferences.

A recent article in the Atlanta Journal Constitution revealed that in comparison to African American females, males are failing and dropping out of school at higher rates than females (Tucker, 2010, September 17). We could relate our findings to the fact that there are gender differences in academic success. The early development of a racial in-group versus a racial out-group preference could be related to the different academic outcomes between male and female adolescents, however more research is needed.

Results from both experiments indicated that the development of an in-group preference can be accompanied by the tendency to explain preferences using racial and gender related

terms. Those children who preferred their racial out-group gave more "just because" reasons for their preference. This relates to literature suggesting that the more significant differences a child observes between groups, the stronger preference for their in-group (Nesdale & Flesser, 2001). Children who preferred the out-group may have also used more "just because" explanations due to feelings of awkwardness that may emerge when preferring those that are not like the self.

The early learning of differentiating between males and females and later acquisition of the ability to distinguish between different racial groups was confirmed in both experiments. Young children are capable of learning how to verbally differentiate between gender groups before racial groups (Hirschfield, 1996/2001). The current studies both show a clear difference between the younger and older age groups use of race related explanations of difference indicating a maturity of social-cognitive skills (i.e. matching skin color with socially defined constructions of race such as Black and White). These results mirror those found in the original Clark and Clark doll study (1947) which demonstrated an increase in conceptual knowledge of the word "Negro" with age.

Although children in Experiment 1 shared equally regardless of doll race or doll gender, the sample of participants in Experiment 2 showed the beginning stages of bias sharing behavior. Nesdale and Flesser's (2001) analysis of Social Identity Theory suggests that there are phases that occur in development beginning with a Preference Phase which takes place during the early preschool years in which children have an in-group bias focusing mainly on the positive attributes of their group. This phase can be followed by the Prejudice phase (ages 6-7) in which the out-group member is disliked and treated unfairly. What is interesting about the present study is that children this sample of children were seen treating members of their outgroup more

fairly than their ingroup. Future research is needed to further investigate why this bias is not in favor of the in-group as witnessed in European American children.

Social Identity suggests that in-group preference accentuates the self. The jury is still out on how the self is impacted by *a lack* of an in-group preference. It has been suggested that self-image, self-esteem and personality can be negatively affected via internalization of widely held negative schemas that characterize low social-status groups. *Internalized racism* occurs when individuals who are members of stigmatized groups endorse negative messages regarding their aptitude, abilities, and societal place. In circumstances like this, the self-concept of an individual can be in conflict with the widely held negative stereotypes about the group. Festinger's (1954) *Social Comparison theory* rests on the assumption that people have a need to positively evaluate themselves and that group is an important part of the self-concept. Tajfel and Turner (1979) referred to Festinger when theorizing that people evaluate the in-group more favorably than the out-group in order to achieve positive self regard. Future studies should investigate behavioral and attitudinal outcomes of the early development of an out-group preference or lack of an in-group preference.

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Tables

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<u>Appendix</u>

*   - significant differences *p<.05*
NS - not significant *p>.05*

Table 5: Age Effect on Non-Race vs. Race Related Explanations of Difference in the Race Condition

| | | What is different about these dolls? | | Total |
		non-race related	race related	
Age Group	38.7-52.9 months	**<u>8</u>**	**<u>17</u>**	25
		*	*	
	58.5-71.8 months			30
		<u>1</u>	<u>29</u>	
Total		9	46	55

Table 6: Age Effect on Non-Gender vs. Gender Related Explanations of Difference in the Gender Condition

| | | What is different about these dolls? | | Total |
		not gender related	gender related	
Age Group	38.7-52.9 months	6	19	25
		NS	NS	
	58.5-71.8 months	4	26	30
Total		10	45	55

Running head: Racial versus Gender Preferences in African American Preschoolers

Table 7: Racial Preference of All Participants

Which doll do you like the most?

	Frequency	Percent
White doll preference	33	60.0
	NS	
Black doll preference	22	40.0
Total	55	100.0

Table 8: Comparison of Racial Preference by School Type

| | | Which doll do you like the most? | | |
		White doll Preference	Black doll Preference	Total
School Type	Black	17	11	28
		NS	NS	
	White	16	11	27
Total		33	22	55

Table 9: Gender In-group Preferences

		Which doll do you like the most?			Total
		outgroup	ingroup	prefers both	
Gender	male	**11** —— NS —— **17**		1	29
	female	**4** ——— * ——— **22**		0	26
Total		15	39	1	55

Table 10: Friendship Choice as a Function of School Type

		Which doll is like most of your friends?			Total
		White doll Preference	Black doll Preference	Both	
School Type	Black	**9**	**18**	1	28
		NS	*		
	White	**16**	**8**	3	27
Total		25	26	4	55

Running head: Racial versus Gender Preferences in African American Preschoolers

Table 11: Racial Identification by School Type

		Which doll is most like you?		
		White doll	Black doll	Total
School Type	Black	**10** ——— NS ———	**18**	28
	White	**7** ——— * ———	**20**	27
Total		17	38	55

Table 12: McNemar Comparison of All Children's Explanation of Difference Gender Conditions

	Non-gender related	Gender-related
Non-gender related	**1**	0
Gender-related	2	**55**

Table 13: McNemar Comparison of Older Children's Explanation of Racial Difference in both Race Conditions

	Non-race related	race related reasons
Non-race related	**2**	1
Race related	1	**24***

Table 14: McNemar Comparison of Younger Children's Explanation of Racial Difference in both Race Condition

	they just are	race related diff
"they just are"	**16**	2
		NS
race related reasons	0	**12**

Table 15: McNemar Comparison of Girls Gender Preference in both Gender Conditions

	White girl	White boy
Black girl	**21**	4
		*
Black boy	4	**2**

Table 16: McNemar Comparison of Boys Gender Preference in both Gender Conditions

	White girl	White boy
Black girl	**4**	2
Black boy	7	**15**

*

Table 17: McNemar Comparison of Racial Preference in Predominantly African American schools in both Race Conditions

	Black boy	White boy
Black girl	**9**	7
White girl	9	**7**

NS

Running head: Racial versus Gender Preferences in African American Preschoolers

Table 18: McNemar Comparison of Racial Preference in Predominantly White schools in both Race Conditions

	Black boy	White boy
black girl	**_12_**	2
		NS
white girl	3	**_12_**

Table 19: McNemar Comparison of Girl Participants Racial Preference in both Race Conditions

	Black boy	White boy
Black girl	**_8_**	5
	NS	
White girl	8	**_9_**

Running head: Racial versus Gender Preferences in African American Preschoolers

Table 20: McNemar Comparison of Boy Participants Racial Preference in both Race Conditions

	Black boy	White boy
Black girl	**13**	4
	NS	
White girl	4	**10**

Table 21: McNemar Comparison of Girls Gender Preference in both Mixed Conditions

	Black girl	White boy
Black boy	7	**2**
	*	
White girl	**17**	3

Table 22: McNemar Comparison of Boys Gender Preference in both Mixed Conditions

	Black girl	White boy
Black boy	9	**12**
White girl	**5**	6

NS

Table 23: McNemar Comparison of Girls Racial Preference in both Mixed Conditions

	Black girl	White boy
Black boy	**7**	2
White girl	17	**3**

NS

Running head: Racial versus Gender Preferences in African American Preschoolers

Table 24: McNemar Comparison of Boys Racial Preference in both Mixed Conditions

	Black girl	White boy
Black boy	**9**	12
	NS	
White girl	5	**6**