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Relationship of Ethnic Identity to Unconscious Race Biases

Rachel Matsumoto

Saint Mary's College of California
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Abstract

The current study looks at the relationship of ethnic identity to unconscious race biases. Unconscious race biases, or implicit attitudes, are attitudes that are unconscious and automatic. As a consequence, subjects are unaware or unwilling to recognize their own attitudes which make measuring implicit attitudes difficult. Through the use of the Implicit Association Test (IAT; Greenwald, et al., 1998) implicit attitudes have become easier to accurately and appropriately measure. Furthermore, ethnic identity as defined by Phinney (1992) is a multidimensional and dynamic construct that represents an individual’s identification as a member of a particular ethnic or racial group. The Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992) was developed to assess ethnic identity and has been show to be valid and reliable. Furthermore, ethnic identity might related to implicit attitudes, as past research has found that participants with a higher senses of their ethnic identity also had diminished feelings of threat from other groups, (Ellemers, Spears, & Soosje, 1999). Results were not found to be significant, however, a trend towards significance in the relationship between level of diversity of friends and race IAT categories was found. Additionally, there appeared to be a relationship between the level of diversity of the participants’ neighborhood and the race IAT category, as well as, gender difference in race IAT categories; however, these results were not found to be significant. Overall, results were not significant, although this may be due to the small sample size.
Introduction

For many years, implicit attitudes have been the focus of various research projects. According to Nosek, Greenwald, & Banaji (2007) implicit refers to “measurement methods that (a) do not require introspective access, (b) reduce the available mental control to produce the response, and (c) reduce the role of intentional processes.” More specifically, implicit attitudes are attitudes that are unconscious and automatic and, as a consequence, they are hard to measure. Subjects can be either unaware of or unwilling to recognize their own biases and in both instances this can have an effect on self-report measures. However, through the development and implementation of alternative testing measures—such as measuring physiological responses and the use of the Implicit Association Test (IAT; Greenwald, et al., 1998)—biases attributed to self-report measures have been avoided. As Kim (2003) found, subjects who were asked to fake self-report race measures were able to do so, yet they were unable to fake the race attitudes IAT measure. This resistance to faking is attributed to the IAT’s sensitivity to automatically activated associations. More specifically, the IAT assesses implicit attitudes by evaluating the strength of associates between a group category and an emotional response and by observing response latencies (Cvencek, Greenwald, & Meltzoff, 2011; Greenwald, Poehlman, Uhlman, & Banaji, 2009). For instance, in terms of race, the IAT measures the associations between White or Black and good or bad.

The race IAT is one of fourteen IATs that measures implicit attitudes and it is perhaps one of the most important. Measuring and understanding race biases through the use of the IAT creates a starting point for intervention and prevention methods of implicit attitudes due to the
fact that it brings to light unconscious biases. Becoming aware of implicit attitudes allows room for change and adjustments. As defined by Abound (1988), racial prejudices are “an organized predisposition to respond in an unfavorable manner toward people from an ethnic group because of their ethnic affiliation.” In other words, race biases are negative attitudes towards members of an ethnic or racial group because of their membership to that group. Research has shown that North American children as young as age three display negative biases toward people of dark skin color. Possible explanations for this race bias have been attributed to many factors including child-rearing practices, social learning, and even a generalized fear of the dark. Furthermore, research shows that children are able to make affective judgments based on social learning rather than cognitive factors; this suggests that social learning plays an important role in the evaluation of race and aides in the attribution of positive or negative emotions associated with race, (Cramer & Anderson, 2003).

Dunham, Baron, and Banaji (2006) used the race IAT to examine the development of implicit attitudes in American and Japanese children and adults. They found implicit biases to be stable across development, across culture, and across outgroups. Based on these findings, stability across culture suggests that implicit race attitudes do not rely on the degree of contact or familiarity with outgroup members and, in addition, they do not rely on culture-specific settings. Moreover, Aberson, Shoemaker, & Tomolillo (2002) found that white participants who reported having close friendships with African or Latino Americans exhibited less implicit biases than participants who reported having no friends in the target groups, and, additionally, performed better on the race IAT tasks. This finding is attributed to the perspective that implicit attitudes are based on associations that the participant is familiar with in their own environment; thus, “individuals who have friends from other ethnic groups are more likely to be exposed to positive
associations with African Americans and Latinos and...these associations are reflected in positive IAT scores,” (Aberson, et al., 2002). Additionally, research has shown that gender differences in implicit race attitudes are inconsistent and small (Huges & Tuch, 2003). Ekehammar, Akrami, and Araya (2003) found that women showed higher implicit race attitudes than men, while Nosek et al. (2002) found the opposite, men demonstrated higher implicit attitudes than women, (Nosek et al., 2007).

Through the years, race biases have been measured in different manners. For instance, in addition to the IAT assessment, self report and physiological methods have been employed to assess race biases. Self report methods, however, have been found to be vulnerable to issues such as social desirability. Physiological methods—for example, recording skin conductance—have been introduced in an attempt to minimize social desirability and self report biases. In addition to skin conductance, research has used amygdala activity to measure race bias. While, skin conductance has since been found to be an inadequate measurement tool, amygdala activity remains an area of interests because of its association with threat detection and ability to identify levels of unconscious race biases that are undetectable on self report measures, (Amodio, Harmon-Jones, & Devine, 2003). Physiological measures provide more accurate assessments of implicit attitudes than self report measures because one does not need to be aware of unconscious biases in order for the attitudes to be detected.

Based on past literature Prohansky (1966) suggested a developmental model of ethnic identity development in children. Prohansky’s model included three overlapping stages: ethnic awareness, ethnic orientation, and ethnic attitudes, (Clark, Hocevar, & Dembo, 1980). However, in contrast to Prohansky’s (1966) model, Phinney (1993) used empirical data to propose a more accurate three stage model of ethnic identity formation in adolescents. Phinney’s three stages are:
unexamined ethnic identity, ethnic identity search, and achieved ethnic identity. The first stage, unexamined ethnic identity, is characterized by the acceptance of the majority society's values and beliefs and in addition, the lack of investigation and exploration into one's own ethnicity. The second, ethnic identity search transpires only after the occurrence of an event, such as acts of discrimination, which interfere with one's worldview and encourages the reevaluation of the individual's identity. The final stage is achieved ethnic identity and is when individuals have a positive and unwavering understanding of their own ethnicity and ethnic group, (Utsey, 2002). Phinney's model of ethnic identity development has been found to accurately illustrate ethnic identity development in adolescents rather than Prohansky's earlier model.

According to Phinney's perspective of ethnic identity, "one claims an identity within the context of a subgroup that claims a common ancestry and shares at least a similar culture, race, religion, language, kinship, or place of origin," (Trimble, 2010). Furthermore, Phinney (2003) defines ethnic identity as a "dynamic, multidimensional construct that refers to one's identity, or sense of self as a member of an ethnic group." Phinney also suggest that ethnic identity should not be considered to be fixed but rather created and modified based on one's own understanding of their ethnicity within a sociocultural setting (Phinney, 2003). Additionally, unlike Prohansky's model of ethnic identity development, Phinney suggests that ethnic identity typically develops during late adolescence and early adulthood. This perspective is supported by Branch's (2001) study that found that the pattern of responses to the MEIM differ for subjects 13 to 19 years old and those between 20 and 26 years old, as well as by Phinney (1992) who found ethnic identity achievement (a subscale of the Multigroup Ethnic Identity Measure, MEIM) to be statistically significantly higher among college students than high school students. Phinney (1991) suggests that ethnic identity can be measured by focusing on components such as a sense of belonging,
attitudes towards one’s own ethnic group, and self-identification as a group member and other elements that are universal across groups, (Avery, 2007). Multigroup Ethnic Identity Measure was developed by Phinney (1992) to measure ethnic identity as a common occurrence across groups. In addition, in regards to Phinney’s MEIM, ethnic identity is defined in terms of a continuum rather than stages, as suggested by Prohansky’s model.

Ethnic identity has been found to be related to self-esteem. More specifically, it has been found that the greater the ethnic identity, the higher self-esteem is among middle/junior high school students, both monoethnic-multiethnic high school students and college students, as well as minority college students (e.g. Smith, Walker, Fields, Brookin & Shey, 1999; Marinez & Dukes, 1997; Phinney 1992; Phinney & Alipuris, 1996). While it has been found that ethnic identity is positively related to self-esteem, the relationship varies according to the social context, as well as, the particular ethnic group. Cuellar et al. (1997) found that ethnic identity is negatively correlated ($r = -.32, p = <.001$) to acculturation, more specifically, those participants with higher ethnic identity scores showed lower acculturate scores. Phinney & Alipuria (1990) and Phinney (1989) found a relationship between ethnic identity and self-concept in both minority high school students and minority and majority college students, which suggests that ethnic identity plays an important role in the self-concept of minority youth, (Phinney, 1992).

Past research has suggested that ethnic identity and unconscious race biases might be related to one another because ethnic identity is related to out-group attitudes. Phinney et al. (1997) found that ethnic identity was indirectly related to out-group attitudes and ethnic identity scores were positively related to in-group attitudes which were found to be predictors of out-group attitudes. Moreover, Ellemers, Spears, & Soosje (1999) found that an achieved ethnic
identity comes with a sound dedication to one’s own group, which, in turn is associated with diminished feelings of threat from other groups. Additionally, Taifel & Turner (1986) proposed that having a secure sense of one’s own ethnic identity reduces the need to view other groups as less favorable. These findings are supported by Phinney, Jacoby, & Silva (2007) who found that the exploration of one’s own ethnicity encourages the development of a clear understanding of one’s “own and other groups, and of the relationship among groups, and this understanding will underlie more positive attitudes towards other groups.” Furthermore, ethnic identity was significantly related to attitudes and understandings of other groups, (Phinney et al., 2007). As previous research has found, ethnic identity is related to both positive and negative feelings towards other groups.

In this study, the relationship of ethnic identity to unconscious race biases is being explored.

- Hypothesis 1: participants are more likely perform better on the IAT tasks if they grew up in a more diverse neighborhood versus a less diverse neighborhood.

- Hypothesis 2: participants with a more diverse group of friends, rather than a less diverse group of friends, are more likely to perform better on the IAT tasks.

- Hypothesis 3: there is expected to be no gender differences in the race IAT categories.

- Hypothesis 4: it is expected that there will be no difference in IAT categorization for participants who grew up in the United States versus those who grew up outside of the United States.
- Hypothesis 5: it is expected that there will be no significant gender differences with regard to the MEIM scores.

- Hypothesis 6: MEIM measures will be a predictor of the race IAT category and participants with higher MEIM scores will be more likely to show less of an automatic preference for European Americans compared to African Americans.

Methods

Participants

Participants were undergraduate students from Saint Mary’s College of California and were recruited through the use of an informational flier. A total of 30 students participated in the study (13 males and 17 females). Participants ranged in ages from 18 to 23 years old, with a mean age of 19.4 years old. The sample included 13 white, Caucasian, Anglo, European American; not Hispanic participants; 6 Asian or Asian American, including Chinese, Japanese, and others participants; 5 Black or African American participants; 5 Hispanic or Latino, including Mexican American, Central American, and others participants; and 1 mixed; parents from two different groups participant. Subjects completed the MEIM and IAT measures electronically. Testing occurred on multiple days.

Materials

Multigroup Ethnic Identity Measure (MEIM). The original MEIM (Phinney, 1992) consists of 14 items that assess three aspects of ethnic identity. These aspects are positive ethnic attitudes and sense of belonging, ethnic identity achievement, and ethnic behaviors or practices. However, a current revision of the MEIM that consists of 12 items and only 2 subscales was used in this
study. The two subscales are ethnic identity search and affirmation, belonging, and commitment. The ethnic identity search subscale contains 5 items that assess involvement in and consideration of one’s own ethnic group; this is considered to be the developmental and cognitive component of ethnic identity. Additionally, the affirmation, belonging, and commitment subscale is considered to be an affective component of ethnic identity and contains 7 items that assess one’s sense of belonging and affect for their ethnic group. The 4 additional items are used to evaluate self identification and ethnicity of parents; an example of these items is an open-ended question about one’s ethnicity, the question is intended to “elicit a spontaneous state of one’s chosen ethnic label,” (Phinney, 1992). A 4-point scale is used to rate each item from strongly agree to strongly disagree. The MEIM is scored by summing across items, and calculating a mean for all items and for each subscale. Phinney (1992) calculated reliability coefficients for the MEIM with both a high school sample (N = 417) and a college sample (N = 136). Cronbach’s alpha of .81 for the high school students sample and .90 for the college student samples were obtained. A 2 Factor Analysis was supported by Phinney (1992) who found that in a high school student sample, Factor 1 (label EI) accounted for 20% of variance and Factor 2 (labeled OGO) accounted for 9% of variance. Additionally, in the college student sample, EI accounted for 31% of variance and OGO 11%.

Implicit Association Test (IAT). The IAT (Greenwald et al., 1998) assesses the strength of associations between two related concepts with an attribute by measuring the response latencies on the computer administered tasks. The IAT is comprised of 7 blocks of 5 different tasks outlined below in Table 1. For half of the participants, the positions of Blocks 1, 3, and 4 are switched with the positions of Blocks 5, 6, and 7, correspondingly. Additionally, “the procedure in Blocks 3, 4, 6, and 7 is to alternate trials that present either a pleasant or an unpleasant word
with trials that presented either [African American] or [European American] image."
(Greenwald, Nosek, & Banaji, 2003). The IAT is scored by nonsystematically eliminating
subjects for excessively slow responding times and/or for high error rates, dropping the first two
trials in Block 4 and Block 7, recoding latencies below 300ms and above 3,000ms to the nearest
value boundary, averaging the resulting values for each of the blocks, and, finally, computing the
difference between Block 7 and Block 4, (Greenwald, Nosek, & Banaji, 2003). Through a meta-
analysis of the IAT, Greenwald et al. (2009), calculated the test-retest reliability median value of
$r = .56$ across 9 reports. In addition, Chronbach’s alpha $\geq .70$ was calculated for interrater
reliability, (Greenwald et al., 2009). Kraus (1995) determined predictive validity effect size of $r$
$= .38$.

<table>
<thead>
<tr>
<th>Block</th>
<th>Number of trials</th>
<th>Items assigned to Left-Key response</th>
<th>Items assigned to Right-Key response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>African American Images</td>
<td>European American images</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>Pleasant words</td>
<td>Unpleasant words</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>African American images AND Pleasant words</td>
<td>European American images AND Unpleasant words</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>African American images AND Pleasant words</td>
<td>European American images AND Unpleasant words</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>European American images</td>
<td>African American images</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>European American images AND Pleasant words</td>
<td>African American images AND Unpleasant words</td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>---------------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>40</td>
<td>European American images AND Pleasant words</td>
<td>African American images AND Unpleasant words</td>
</tr>
</tbody>
</table>

**Procedure**

Participants were solicited from Saint Mary’s College of California through the use of an informational flier. After providing informed consent, as a group, participants were administered the MEIM and then the race IAT measures electronically. After completing the race IAT tasks, participants printed out a summary of their results specifying their IAT category and submitted it to the researcher. Participants were not compensated for their participation in this study.

**Plan of Analysis**

A chi-square analysis will be used to address hypotheses 1, 2, 3, and 4. A t-test analysis will be used to explore hypothesis 5. An Analysis of Variance (ANOVA) will be used to address hypothesis 6.

**Results**

Hypothesis 1. A chi-square analysis showed that results were not statistically significant in the relationship between level of diversity of neighborhood and the IAT category, \( \chi^2 = 6.62(9), p > .05 \). However, results showed that 87.5% of participants in the “strong automatic preference for European Americans” IAT category reported being from less diverse neighborhoods.
Hypothesis 2. A chi-square analysis showed that there was a trend towards significance in the relationship between the level of diversity of friends and the IAT category, ($\chi^2 = 16.29(9), p = .06$).

Hypothesis 3. Although not significant, a chi-square analysis found, ($\chi^2 = 2.35(3), p > .05$), higher percentages of participants categorized as “strong to automatic preference for European Americans” were male and lower percentage of participants categorized as “little to no automatic preference” were also male. Additionally, higher percentages of participants were classified as “little to no automatic preference” were female and fewer were categorized as “strong automatic preference for European Americans.” These findings are outlined in Table 2 below.

<table>
<thead>
<tr>
<th>IAT Category</th>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong automatic preference for European Americans</td>
<td>5 male participants</td>
<td>62.5%</td>
<td>3 female participants</td>
</tr>
<tr>
<td>Moderate automatic preference for European Americans</td>
<td>4 male participants</td>
<td>40%</td>
<td>6 female participants</td>
</tr>
<tr>
<td>Slight automatic preference for European Americans</td>
<td>3 male participants</td>
<td>42.9%</td>
<td>4 female participants</td>
</tr>
<tr>
<td>Little to no automatic preference</td>
<td>1 male participant</td>
<td>20%</td>
<td>4 female participants</td>
</tr>
</tbody>
</table>
Hypothesis 4. Only 3 participants reported being raised outside of the United States. Chi-square analysis results were insignificant, ($\chi^2 = 4.13(3), p > .05$) and this may be due to the inadequate sample size.

Hypothesis 5. An independent samples t-test analysis assessed the MEIM over-all scores and MEIM subscales across genders. Results were not found to be significant, however, there was a slight difference between MEIM over-all scores for males ($M = 3.14, SD = .51$) and for females ($M = 2.92, SD = .52$) $t_{26} = 1.173, p > .05$. Additionally, MEIM ethnic identity subscale scores for males ($M = 2.89, SD = .69$) and females ($M = 2.76, SD = .68$) $t_{26} = .504, p > .05$ showed little difference, as well as, the MEIM affirmation, belonging, and commitment subscale scores for males ($M = 3.21, SD = .49$) and for females ($M = 3.07, SD = .53$) $t_{26} = .738, p > .05$.

Hypothesis 6. An Analysis of Variance (ANOVA) was run to determine the variance within and between the IAT category and the MEIM over-all scores and MEIM subscale scores. Results were found to be not significant, for the ethnic identity subscale, ($F(3, 26) = .476, p > .05$); for the affirmation, belonging, and commitment scale, ($F(3, 26) = .168, p > .05$); and for the MEIM over-all score ($F(3, 17) = .170, p > .05$).

Discussion

Past research by Aberson, Shoemaker, & Tomolillo (2002) supports the trend towards significance in the relationship between the level of diversity of friends and the IAT category. It was found that white participants who reported having close relationships with African American or Latino American individuals limited their implicit race biases. This is also supported by Wagner, van Dick, Pettigrew, & Christ (2003) who found that “it is intimate and personally
relevant forms of contact with foreign friends...and evaluating these interpersonal relations as important...that contribute[s] heavily to the reduction of prejudice,” in their study of East and West German attitudes.

There were expected to be no gender difference in the race IAT categories, however, though the results were not significant, there appeared to be a pattern of results where the majority of participants classified as “strong automatic preference for European Americans” were male and the majority of participants classified as “little to no automatic preference” were female. This pattern suggests that there may be a gender difference in regards to race IAT categories. However past research by Huges & Tuch found that gender differences are inconsistent and small which is exemplified by Ekehammar, Akrami, & Araya (2003) who found that women showed higher rates of implicit race attitudes than men and by Nosek et al. (2002) who found the opposite—men exhibited higher rates of implicit race attitudes, in comparison to women.

Only 3 participants reported having grown up outside of the United States, a chi-square analysis was conducted, however, the results were found to be insignificant. This may be due to the insufficient sample size.

Although the results were not significant, there may be no gender differences on the MEIM over-all score or the ethnic identity subscale score or the affirmation, belonging, and commitment subscale.

A one way Analysis of Variance (ANOVA) was run to assess the variance of race IAT categories between and within the MEIM over-all score and the MEIM subscales (ethnic identity search and affirmation, belonging, and commitment scales). Results were not found to be significant. This suggests that the MEIM may not be a predictor of race IAT categories.
Results were not found to be significant, which suggests that ethnic identity might not be related unconscious race biases; however, possible factors may have influenced the results and should be addressed. First, the mean age of the sample was relatively young, 19.4 years old. As Phinney (1992) and Branch (2001) found, ethnic identity measurements are found to be statistically higher in early adulthood. More specifically, Phinney found that ethnic identity achievement subscale scores were higher in college age students in comparison to high school students. A possible explanation is that the participants in this study were too young for their ethnic identity to be accurately measured because their ethnic identity is still developing and molding through late adolescent and early adulthood. Future samples should include an older mean age—between 13 to 19 and 20 to 29 years old—to account for the difference in MEIM responses (Branch 2001).

Secondly, results may be insignificant due to the small sample size; furthermore, all data was gathered at Saint Mary’s College of California. The sample did not adequately represent the greater population. Future studies should obtain a larger and more diverse sample.
References


Phinney, J.S. *The multigroup ethnic identity measure (MEIM).* Retrieved from https://www.calstatela.edu/academic/psych/ftp/meim.doc


