The Association between Language Ability/Cultural Background and Racial Bias: A Pilot Study

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Abstract. There has been prejudice and bias towards other races since hundreds of years ago. Even though stereotypical racial bias has decreased or controlled consciously accompanied with education of global equality, a new form of racial differentiation - implicit bias has evolved and attached to our unconscious behaviors. The IAT test and the AMP test are typically used for detecting subtle attitudes and implicit opinions. In this case, a survey adapted from the IAT test is performed using Qualtrics, after which data analysis is conducted through SPSS to prove that multilingualism is less likely to be racially biased compared to monolingualism.

1. Introduction

Prejudice and discrimination have long existed in society and these thoughts and behaviors result in negative influence for those who are biased. Racism behavior can be reflected in various aspects including verbal or physical attack, unequal opportunities and stereotypical assumptions. Past research has shown that racial attitudes have been improving over time and that the belief in negative race-based stereotypes has gradually declined [1]. However, racism ideas have evolved in modern society, instead, the “old-fashioned” prejudice has diminished. It could be argued that conscious behaviors – the ones that are easy to recognise and control – represent the real person, and the others are fake. Nevertheless, people have unconscious behaviors when interacting with others, meaning modern racism is subtle, rationalized, and implicit forms of prejudice and bias [2]. This has occurred under the circumstance in which society and government is advocating anti-racism. As a result, modern society has produced a new set of racial beliefs that are usually denied to be racism though. Implicit racial bias causes people to unintentionally act in discriminatory ways. Figure 1 shows the definition of implicit racial bias. This does not represent a person as thoroughly racist, but rather their perceptions have been shaped by past experiences and these perceptions potentially result in biased thoughts or actions [3]. The extent of such an implicit set of beliefs a person holds can be measured by the BIAT and the AMP.

Fig. 1. Definition of implicit racial bias [4]
The BIAT stands for the brief version of the IAT where the respondents are asked to click buttons after their first reaction when seeing four visual stimuli (a Black person’s face, a white person’s face, pairing with a positive or a negative word) for a consistent repetition of trials [5]. For the first round they are instructed to press the same key for white face and negative words; black face and positive words. While in the second round they are instructed to press the same key for white face and positive words; black face and negative words. A difference in time of response is recorded between white & good, black & bad, and white & bad, black & good, then a D-score is calculated within the value of ±2 to demonstrate and visualize a preference for black people and white people.

In the AMP, a picture of either black people or white people will be presented before a picture of a Chinese person is presented to the subject. Respondents are asked if the Chinese character looks pleasant or unpleasant to them, and the result reflects subjects’ biased opinion against black or white people through an immediate comparison with a neutral/mediator character. The resulting AMP scores land on a scale of ±1 which determines if black people and white people appear pleasant to the respondents. Both BIAT and AMP are able to visualize the extent of racism while not over categorizing racial bias into stereotypical belief, therefore, both tests can be performed on respondents in order to strengthen the result [6].

Multilingualism is defined as people who fluently speak two or more languages, including those born and raised in a multilingual environment and those who acquire knowledge of a second (or more) language(s) through other social settings [8]. A multilingual individual is not necessarily having native competency in several languages, but a multilingual possesses very high levels of proficiency in at least two languages in the written and the oral modes or display high proficiencies in comprehension and speaking skills depending on the immediate area of experience in which they are called upon to use their two languages [9]. In recent decades, an increasing number of schools have included voluntary or mandatory foreign language courses for the purpose of raising multicultural awareness, culture diversity and linguistic awareness and thus diminish racism in the early life stage through education [10].

The United States, as a country of culture infusion, has more than one million international students, meaning about 5 percent of students are from a country other than the US. People from more than 200 countries have studied in America and the number of international students is increasing at a constant rate [11]. Many schools provide a variety of language courses to adapt their students to be diverse, flexible and equal in culture. In order to testify to the hypothesis that in depth language education helps reduce or eliminate racism, further experiment and statistics tests should be performed on students in the United States. Figure 2 shows the race ratio of the United States.

2. Methods/Research Design

Participants in this experiment are all high school students in the United States (age varied from 13 to 19). Subjects will be asked to identify themselves to be either multilingualism or monolingualism before being tested.
The test is conducted in the form of a survey using Qualtrics as a platform. Pictures used in this experiment include faces of black people, white people, Hispanic and Latino people, east Asian people and middle east Asian people (Arabian). All pictures in the test have neutral expressions, the respondents will select answers with their initial thought or their potential attitude toward the person in the picture. In the test, four pictures from each ethnic group will be randomly generated and shown to the subject along with either a positive adjective or a negative adjective below (two pictures from each ethnicity appear with a positive adjective and other two pictures from each ethnicity appear with a negative word). The test contains more races than the traditional IAT test (Figure 3) in order to make the test more inclusive (the five races included in the test are the most common minority races in the US) [13]. The research aims to prove that language education can decrease or eliminate racial discrimination by using a test adapted from the traditional IAT test [14]. The test is run in the form of a survey using Qualtrics which includes two sections and there are forty questions in each section.

3. Results

In the 84 valid responses, 42 respondents are monolingualism and 42 respondents are multilingualism. In order to calculate and visualize the tendency of each group of respondents to have biased/negative thoughts towards other races, an independent T-Test is performed towards the data to prove the hypothesis that multilingualism will less likely choose negative words and have implied bias towards other races. When the respondent selects a positive word, they will receive 1 point; a negative word, 2 points. The higher total number a person gets, the more potential racism ideas they possess. Data analysis is computed through SPSS after false data is removed. The result does not contain respondents who didn’t finish the test, respondents who didn’t select language ability and respondents who took too much time or too little time finishing the survey.

The 42 monolingualism (M = 113.0714, SD = 3.58447) compared to the 42 multilingualism (M = 110.3095, SD = 6.52757) demonstrate a significant difference in attitude towards all races, t = 2.404, p = 0.18. In conclusion, monolingualism has a distinct tendency to have racial bias compared to multilingualism. Table 1 shows the group statistics of monolingualism and multilingualism.

4. Discussion

Table 1. Group Statistics of monolingualism and multilingualism

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<th>Group Statistics</th>
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<td>Mono/Multi</td>
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<tr>
<td></td>
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<td>42</td>
<td>110.3095</td>
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Table 2. Independent T-test to demonstrate the significance of difference in attitude towards all races between monolingualism and multilingualism

<table>
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<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
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<td>Sig.</td>
<td>t</td>
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<td>Equal variances not assumed</td>
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<td>2.404</td>
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Table 2 shows the independent T-test to demonstrate the significance of difference in attitude towards all races between monolingualism and multilingualism. The result of the test proves the hypothesis that a versatile language education and culture education can lead to a generation that possesses less bias. Further tests should be conducted with a larger number of respondents in order to solidify the research result that a multilingual and multicultural background, education and environment enable people to view the world equally. The survey should be enhanced by measuring other aspects in the questionnaire, for instance time recording, eye movement detection and other details that reflect one’s implicit and initial reactions. Moreover, the test should be personalized for respondents according to their race, and the test result might as well be associated with the region’s belief and education environment. In the meantime, language and culture education should be fortified and improved by educators globally. Advocating for a culture united education environment will train the next generations to respect people of all kinds and not to judge others arbitrarily by their looks, but using a more rational mind.

5. Conclusion

Statistics have proved that the ones exposed to more complicated and diverse language/culture environment has significant lower tendency to hold implicit bias towards other races. Thus, it is a necessity to encourage language education among students. In other words, in addition to advocating racial equality, a larger or broader view and knowledge for culture and language can decrease or even eliminate racial discrimination in a long term.

Reference

7. Gijsbert Stoet, Professor of Psychology at the University of Essex (UK)