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The Effects of Auditory Phonemes on Automatic Social Grouping

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THE EFFECTS OF AUDITORY PHONEMES ON AUTOMATIC SOCIAL GROUPING

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INTRODUCTION

OVERVIEW

The present research seeks to answer the question, what is the minimal auditory stimulus that causes people to group themselves, and consequently, feel less empathic towards those in the out-group? The researchers hypothesize that the auditory presence of language-specific phonemes is the initial mechanism that produces social grouping based on language cues. Phonemes are the smallest auditory components of language distinguishable from random noise. All languages are composed of many different phonemes (English contains 44 phonemes), which when combined according to the language's syntactical rules, produce morphemes, or sounds with meaning. Some phonemes are shared by many languages, but there are many phonemes that lie outside the 44 found in English. The researchers hypothesize that participants exposed to phonemes not within the English language will implicitly identify these individual phonemes as "foreign" and therefore designate the speaker as a member of the out-group.

HYPOTHESIS: **Participants will associate phonemes from their own language more closely than with phonemes of foreign languages.**

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THEORETICAL FRAMEWORK

SOCIAL IDENTITY

Social identity is one of the most widely explored concepts in social psychology. The formation of in-groups and out-groups occurs frequently and often below the level of consciousness. People form the distinction between "us" and "them" based on any and all distinctions including race, (e.g., Brown, Bradley, Lang, 2006), age, and economic class. Tafjel's foundational work on social identity found that even "minimal," arbitrary distinctions such as blue eyes versus brown eyes, cause people to elevate their own group's status while derogating that of the out-group (Tafjel, 1971). Being an in-group member also comes with its benefits. Researchers found that children were more likely to assign coins to members of the in-group than the out-group, despite the arbitrary nature of the group division (Vaughan, Tajfel, Williams, 1981). One also tends to feel closer to members of the in-group; Maner et al. (2002) manipulated subjects' similarity to a target and found that the greater the similarity, the more empathy experienced for the target.

Language as an Aural Cue for Social Identity

One characteristic of interest to the present study is the role of language in social identity formation. Previous research has shown that in-groups and out-groups are readily formed on the basis of language. Those that do not speak the in-group language are easy to categorize as members of the out-group. Those that speak the in-group language, but speak with a non-native accent can also be relegated to the out-group (Ibrahim, Eviatar, Leikin, 2008). Even people with a degree of bilingualism have a harder time making friends outside of their primary language (Simard, 1981). Accent and other language characteristics transmit cultural information about the speaker to the listeners. A foreign language or accent informs the listener that the speaker is not a member of his/her own culture, and as such is not one of "them," but is part of the out-group. As with other bases for grouping, members of the out-group typically face various forms of prejudice from the in-group (Ng, 2007).

THE IAT AND METHODS

The IAT:
In order to assess human's reactions to phonemes, the researchers will employ a modified version of the Implicit Associations Test or IAT (A. G. Greenwald, D. E. McGhee, & J. L. K. Schwartz, 1998). The IAT uses a template based on classical conditioning principles to measure implicit attitudes. The test enjoys widespread use across topics, and is generally thought of as valid and reliable. As the name suggests, the test measures reactions below the level of consciousness, so testing confounds (e.g. participant expectations) are automatically factored out. Participants are asked to organize stimuli into one of two categories as quickly as possible. The faster the participant correctly categorizes the stimuli, the closer the two stimuli are said to be associated in the participant's mind. This allows for a relatively open format for stimuli input, giving researchers a great deal of freedom; that is, virtually any topic or attitude can be examined if it can be assigned stimuli that can be administered with a computer.

Yet despite the open nature of the IAT format, during the 14 or so years of the IAT's implementation, almost no one has deviated from the standard visual stimuli template. The researchers found two unpublished dissertations that successfully implemented an auditory dimension to the IAT. Simply by replacing one or more of the categories of visual stimuli with auditory stimuli, an auditory IAT was created. All of the principles governing the IAT remained intact and the format did not change. There was no reason to believe the introduction of auditory stimuli weakened the validity of the already well-established IAT.

Examining Unconscious Reactions to English and Non-English Phonemes:
As previously outlined in the introduction, the present research aims to address the role of language-specific phonemes in unconscious social grouping. By utilizing auditory stimuli in the IAT format, the researchers were able to create a method of measuring implicit reactions to various phonemes. With the help of pilot tests, the researchers gathered a list of phonemes organized into two categories, "English Phonemes" and "Non English Phonemes". These phonemes became the auditory stimuli applied to the IAT template. Using pre-established "Positive" and "Negative" textual stimuli as the other two IAT components, the present research's IAT format was made of "English Phonemes" and "Non English Phonemes" as auditory stimuli, and "Positive" and "Negative" as textual stimuli.

The researchers hypothesize that native English-speaking participants will associate "English Phonemes" with the "Positive" words more quickly than with the "Negative" words, and conversely will associate "Non English Phonemes" with the "Negative" words more quickly than with the "Positive" words. The researchers hypothesize that this effect can be explained with basic social identity theory. As discussed earlier, it is well established that language is a strong cue for social grouping. As the theory follows, people tend to have warmer or more positive feelings towards members of their in-group. The mere presence of these language-marking phonemes is enough to cause listeners to identify speakers as members of a language in-group or out-group, and subsequently feel empathically 'closer' or more distant, explaining the positive and negative associations shown in the IAT.

DISCUSSION

Although we anticipate the results stated in the hypothesis, the goal of this project is to gain insight into the cognitive speed at which these automatic social groups are formed. In other words, how much stimuli is needed to invoke these group dynamics? The results of the current study will likely lead to further investigation.