What is an out-group?:
Asian Americans and Caucasian Americans racial versus cultural identification with others

Hae Min Byeon
Psychology Honors Thesis
Mentor: Professor Marsh
04/16/2011
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Mentalizing is the tendency to attribute mental phenomena, such as intentions, desires and goals, to other people’s behaviors. The alternative to mentalistic description is mechanistic description that attributes other people’s behaviors to physical descriptions and skills. Previous studies on the developmental aspects of mentalization showed that eighteen month olds exhibit mentalization, and that it continues to develop to the point in which seven to nine year olds learn to identify and also reason for various intentional acts (Frith & Frith, 2003; Mull & Evans, 2010).

Central to the understanding of mentalization is the action identification theory by Vallacher and Wegner (1989). Action identification theory measures people’s tendencies to mentalize or mechanize the actions of self and others. Subjects in action identification tasks can choose between mentalistic (higher-level) and mechanistic (lower-level) descriptions for actions. They found that when one embraces the higher-level identity, there is a tendency to “[view] his or her actions in terms of causal effects, social meanings, and self-descriptive implications” whereas the one with the tendency to embrace the lower-level identity views actions through their mechanistic components (Vallacher & Wegner 1989, 661).

Kozak, Marsh, and Wegner (2006) expanded the action identification theory to study various factors behind different levels of identification and mind attribution for other people’s behaviors. Using vignettes describing different actors and controlling for the likeability of the actors described in these vignettes, they found that the tendency to mentalize other person’s actions increases as liking for that target increases: “action identification may be directly driven by perspective-taking, which itself can be driven by liking” (Kozak et al., 553). Thus,
the research conducted by Kozak, Marsh, and Wegner (2006) showed that mentalizing varies as a function of variable such as liking for a target.

Adding to these prior researches, this research analyzed racial and cultural in-groups and out-groups as variables that influence mentalization of other people’s actions. This research was based on other studies that examined the effects of in-group and out-group bias, as outlined in studies by Cortes, Emoulin, Rodriguez, and Leyens (2005) and Galinsky and Moskowitz (2000). Their findings suggested that people tend to attribute more human emotions to in-group than out-group members because they feel more familiar to the former, but such in-group bias can be reduced when people take the perspective of the actor. In Cortes et al.’s study, these in-group and out-group distinctions were made by comparing the subjects’ responses about four groups of people: “Walloons (in-group), Flemish, Parisians, and residents of Prague” (Cortes et al., 245). Galinsky and Moskowitz’s research (2000) separated in-groups (“overestimators”) from out-groups (“underestimators”) by telling the subjects that their scores indicate that they are overestimators in the dot estimation task (Galinsky & Moskowitz, 2000, 718).

These and other research on mentalization studied the effects of factors such as familiarity, likability, and similarity, but the researchers manipulated the subjects into identifying with one specific in-group. For instance, subjects were led to identify with one group by explicitly telling them that their scores were similar to those of the members of a specific group. However, it is also crucial to examine the influence of inherent, unmanipulated factors—in this case culture and race. More specifically, the research in this field have not yet studied the effects of race and culture on mentalization when subjects are not manipulated to feel strongly familiar, similar, or favoring towards another person but only the race of the actor is introduced.
Together, these aforementioned findings suggest that race and culture can be an important factor of in-group and out-group identification. Action identification theory can thus be useful in studying the links between racial and cultural identification and mentalizing of other people’s behaviors. Two studies described in this paper seek to examine how mentalization is affected by shared race and culture. We begin with the hypothesis that people will select fewer mentalizing as opposed to mechanistic explanations for the behaviors performed by targets of a different race or culture. More specifically, we hypothesize that Caucasians will select fewer mentalizing descriptions for the behaviors performed by Asians than those performed by Caucasians, and that Asians will select fewer mentalizing explanations for the behaviors performed by Caucasians than those performed by Asians.

The findings of the study outlined in this paper will further contribute to the study of mentalization: it improves our understanding of how race and culture influence humans’ tendency to make mentalistic or mechanistic attributes to the behaviors of others. Moreover, this research may help in understanding the problems that emerge when members of racial out-groups are dementalized on the basis of race, including the dehumanization of out-group members that may be associated with biased behaviors toward them.

**STUDY 1**

**METHOD**

*Subjects*

A total of 72 subjects participated in the study. We recruited subjects from Facebook through wall posts and messages that asked people on the friends list to volunteer for a short online survey. 58.33 percent of the subjects were female and 41.67 percent of them were male. The subjects had a mean age of 20 (S.D. = 1.216), with the minimum age of 17 and a
maximum of 25. 44.44% of the subjects were residing in countries outside of their countries of citizenship. For the purpose of this study, which was to examine Asians and Caucasians in particular, 5 of the 72 subjects’ responses were excluded from the analysis because four identified themselves as being more than one race and one as African American. Of these remaining 67 subjects, 31.34% identified themselves as White whereas the remaining 68.66% identified themselves as Asian.

**Apparatus/ Materials**

This research used the BIF (see Appendix II) designed by Vallacher and Wegner (1989). It was originally designed in Vallacher and Wegner’s study (1989) to measure the different levels of personal agency by studying the ways in which subjects identified their own behaviors. It also measured factors such as action effectiveness—“self-reported proclivity for making various kinds of action errors in everyday life”—and action proficiency—“how well they could do it relative to other people who perform the action” (Vallacher & Wegner, 1989, 664-665). Kozak, Marsh, and Wegner’s study (2006) which used the BIF to measure different levels of mentalization in the behaviors of other targets further validated BIF as appropriate measure of mentalization.

**Design**

The dependent variable of this study was the BIF score. In the BIF, subjects chose between mentalistic or mechanistic explanations for 13 actions in each of the Asian/Caucasian target conditions. All subjects were given two BIF scores: one for in-group and one for out-group conditions. BIF score ranged from 0 to 13 for both conditions and this referred to the number of mentalistic descriptions attributed to the behaviors of in-group and out-group
actors. Each subject was first coded on the basis of race (Asian or Caucasian) and then the subject’s BIF score on the Asian-vignette and Caucasian-vignette conditions were calculated. For the purpose of testing the hypothesis that people tend to mentalize the behaviors of the in-group members more than the out-group members, the subjects’ BIF scores were recoded to indicate whether the Asian or the Caucasian target condition was the in-group or the out-group condition for the subject in the study. Higher BIF score thus reflected greater mentalizing explanations attributed to the behaviors of the actor by the subject whereas the lower BIF score indicated fewer mentalizing (greater mechanistic) explanations attributed to the actor’s behaviors.

This study was a 2 x 2 mixed subjects design. The first factor was the race of the subjects. This was measured by having the subjects fill out a survey question at the end of the study regarding their race (along with their age, gender, nationality, major)—See Appendix III. The second factor was the race of the target person. This variable was controlled through two vignettes that the subjects read. One of the vignettes provided information on an Asian person whereas the other one provided information on a Caucasian person—See Appendix II. These vignettes did not directly state the nationality or the race of these actors so as to prevent subjects from seeing race as the salient factor differentiating the two vignettes. Instead, these vignettes provided details, such as the actors’ names and hobbies, to give subtle information on their racial backgrounds.

In order to control for other extraneous variables, these two vignettes were made comparable in all aspects of their described characteristics except for their racial backgrounds. The actors in these two vignettes were equally likeable and the two vignettes included the same types of information—their name, age, gender, education, interests, hobbies and future
plans. Moreover, the presentation of the vignettes was counterbalanced so that half the subjects got the Asian-vignette first whereas the other half got the Caucasian-vignette first.

Another possible confound in this study was the subject’s exposure to different cultures. If a subject had interacted a lot with Asians and Caucasians throughout his life, it is possible that he would identify both Asians and Caucasian as his in-group members and subsequently attribute equal number of mentalistic and mechanistic explanations to both the Asian and Caucasian targets. However, an Asian subject who had seldom interacted with a Caucasian person could perhaps choose more mechanistic explanations for the behaviors of a Caucasian actor. In the former case, the in-group and out-group differentiation may not be so salient on the basis of race, whereas in the latter case there would be a greater influence of race in the perception and judgment of the target person. Asking the subjects the number of Caucasian or Asian friends or acquaintances that they have might help measure the effect of this potential confound, but it could also give hints to the subjects about the purpose of the study.

Procedure

For the purpose of this study, we did not tell the subjects that they are choosing between mentalistic or mechanistic explanations of a behavior but instead told them that there are multiple correct interpretations of a behavior, and asked them to choose one that they thought best explained the behavior of the person in the vignette.

The subjects of the study first read a vignette of either an Asian or Caucasian target. They were then asked to think of the following actions as those performed by the target described in the vignette. The subjects then completed the BIF: they went down the list of actions and chose between mentalistic or mechanistic explanations.
Upon completing the BIF, those who read a vignette on an Asian target were then asked to read a vignette of a Caucasian target, and vice versa. They were again asked to think of the target in the vignette as performing the list of actions described in the BIF and to chose between the two explanations. After each subject completed both conditions, we tallied the total number of Asian targets’ behaviors that the subjects chose mentalistic attributions for. Similarly, we calculated the total number of Caucasian targets’ behaviors that were given mentalistic attributions.

RESULTS

_BIF score for the in-group and the out-group_

A 2 (subject’s race: Asian vs. Caucasian) x 2 (vignette condition: in-group vs. out-group) mixed-model ANOVA with repeated measures were conducted to test our hypothesis on the effects of race in in-group and out-group identification.

Across all group conditions and the race of the subjects, the grand mean of the BIF score was 7.641. For the between-subjects variable of the subject’s race, the 22 Caucasian subjects had an average mean BIF score of 7.804 (SD=0.361); the 46 Asian subjects had an average mean BIF score of 7.477 (SD=0.522) (see Table 1). The results from the mixed-model ANOVA indicated that the main effects of the subject’s race were not significant, F(1, 66) = 0.265, p=0.608 (see Table 2). Therefore, Asians and Caucasians did not differ significantly in their BIF scores across in-group and out-group conditions.

For the within-subjects variable of the vignette condition which had two levels—the in-group and the out-group condition—the subjects’ BIF score of the in-group had a mean of 7.676 (SD=0.40) and the out-group had a mean of 7.606 (SD=0.386) (see Table 1). The results from the mixed-model ANOVA further indicated that the main effects of the in-group
and the out-group were not significant, $F(1, 66) = 0.23, p=0.881$ (see Table 3). Thus, subjects’ BIF scores for the in-group members were not significantly different from those of the out-group members across race.

Further analysis of the degree of mentalization for the in-group and the out-group that was measured in this study with the BIF scores indicated that Asian subjects’ mentalization of in-group targets ($M=7.761, SD=0.456$) and out-group targets ($M=7.848, SD=0.439$) are not significantly different; similarly, differences in the BIF scores for in-group ($M=7.591, SD=0.660$) and out-group ($M=7.364, SD=0.635$) are not significant for Caucasian subjects (Table 1). The results from the mixed-model ANOVA also indicated that there was no interaction between race and group conditions, $F(1, 66) = 0.114, p=0.737$. Hence, the effect of the in-group and the out-group was not significantly different for Caucasians and for Asians (see Figure 1). These results taken together indicate that our hypothesis was not substantiated.

**DISCUSSION**

The results of the analysis did not support the hypothesis that people mentalize behaviors of racial in-groups more than those of racial out-groups. It also revealed a nonsignificant difference between Asian and Caucasian’s tendency to mentalize behaviors of racial in-groups and out-groups. However, previous researches on in-group bias suggest that there would be differences in the ways in which people view other people’s behaviors. For instance, Galinsky and Moskowitz’s study (2000) indicated that in-group and out-group distinctions could be drawn by telling an individual that he or she has scored similarly to some group on a dot estimation task which asked subjects to estimate the number of dots that see on the screen. They then found that when asked to rate other people’s personality traits, the subjects were more favorable towards the in-group than the out-group. Subsequently, it is
highly likely that categorizing oneself as Asian or Caucasian leads to racial in-group and out-group distinctions. This could be further manifested in a more favorable assignment of personality traits and possibly greater mentalization—as Kozak, Marsh, and Wegner’s research (2006) showed that mentalizing increases with likeability of actors—of racial in-groups than out-groups.

With such theories supporting our hypothesis, it is likely that the results were not statistically significant because of various limitations of the design of the study. First, despite the efforts to make the vignette conditions be as subtle as possible in suggesting racial stereotyping and despite the less blunt differences in mentalistic and mechanistic attributions that subjects chose from, there were several instances when the subjects detected the differences in the two conditions and two behavioral (mechanistic vs. mentalistic) explanations. One subject, for example, asked “Is this about racial profiling?” whereas another subject commented, “One explanation is more detailed than the other.” Another subject, after reading the Asian-vignette stated, “Am I supposed to be racist? Do I have to stereotype Asian person’s behaviors?”

These responses specifically indicate the limitations of the within-subjects design of this research. Subjects were exposed to both Asian and Caucasian (in-group and out-group) conditions of the study and could have guessed that the study seeks to find the differences in the action identification for Asians and Caucasians. Such could have lead to subject bias and prompted the subjects to respond in ways that may have resulted in a nonsignificant finding.

Moreover, the study had no control over what the subjects were doing when they were answering questions in the study. Most subjects were able to finish the study in 2 to 6 minutes. However, there were eleven subjects who took longer than 9 minutes to complete the study. It took five subjects more than an hour to complete the study, and it took one subject 6 hours
and 47 minutes. When the study takes longer than 7 minutes, it is questionable whether the subjects were reflecting on the actor described in the vignettes when responding to the questions or were randomly answering questions. It is crucial that subjects followed the instructions and answered questions thinking that either Asian or Caucasian actor was performing the specified actions, but it is questionable as to what extent the subjects did follow the instruction.

Another possible confounding variable is the selection bias: the majority of the subjects were drawn from the friends list on Facebook. It is important to note that most of these subjects have lived abroad for significant periods of time and have attended international schools. In fact, as noted previously, 44.44% of the subjects are currently living outside of their countries of citizenship. It is arguable that these “international students” have greater exposure to other cultures and exhibit less of the in-group bias as a result of their cultural educations, which would subsequently dampen the differences in the ways in which they mentalize the behaviors of the in-group and the out-group on the basis of race.

Although the findings revealed a nonsignificant difference in the ways in which individuals mentalize members of racial in-groups and out-groups, it would be crucial to address the aforementioned limitations before rejecting the hypothesis. In Study 2, we sought to address these limitations of the within-subjects design that could give clues to the subjects as to the purpose of the study by using photographs of people of different race and nationality making various facial expressions.

**STUDY 2**

In order to prevent subjects from thinking that the study was on cultural differences in action identification, we used photographs of Japanese nationals, Japanese-Americans, and
Caucasian Americans displaying different emotional expressions to replace the vignettes. Previous research by Marsh, Elfenbein, and Ambady (2003) used these Japanese and Caucasian Facial Expressions of Emotion (JACFEE) and Japanese and Caucasian Neutral Faces (JACNeuF) sets, originally designed by Matsumo and Ekman, to investigate the existence of subtle nonverbal accents that help people differentiate Japanese from Japanese Americans. Their results showed that subjects were able to distinguish Japanese nationals from Japanese Americans when the targets showed emotional expressions but not when they were showing neutral expressions. Moreover, Marsh et. al (2007) further validated the aforementioned findings by studying nonverbal accents in differentiating Americans from Australians. Their results showed that people were more accurate in identifying Australians from Americans when looking at photographs with emotional expressions than neutral expressions, substantiating their previous finding that “emotional expressions carry information about nationality or culture beyond” that of physical appearances and other factors (Marsh et. al 2003, 375).

In this second part of the study, we separated Asian subjects into Asian-Americans and Asian-nationals in order to study the effects of not only race but culture in mentalization. More specifically, we studied whether Asian American participants would mentalize Caucasian Americans (cultural in-group members) or Japanese nationals (racial in-group members) more.

Just as subtle in-group identification factors, such as similar performance on a dot estimation task, can create a sense of in-group and out-group identification, we hypothesize that people will identify their in-group and out-group members primarily based on race, more so than on culture. Subsequently, we hypothesize that Asian Americans will mentalize the behaviors of Japanese American targets (racial and cultural in-group members) the most and
the behaviors of Caucasian Americans targets (racial out-group, racial in-group members) the least. Moreover, we hypothesize that their mentalization of Japanese national targets (racial in-group, cultural out-group members) will be somewhere in between.

Methods

Subjects

28 Caucasian, 7 African Americans, 11 Asian American, and 5 Asian national Georgetown students from ages 18 to 22 participated in this study. 43 of these participants were female, and 8 were male. African American subjects and Asian national subjects’ responses were excluded from the analysis due to small sample size (N=7, N=5 respectively). The subjects were recruited through the Georgetown Research Volunteer Program and through members of the Chinese Student Association, Korean Student Association and Thai Society at Georgetown University. Subjects were given either one credit or 10 dollars for their participation.

Stimulus Materials

We randomly selected 110 items of the 180 original items of the BIF that have been previously used and validated by Marsh et. al (2010). The JACFEE and JACNeuF sets were incorporated as the second set of the stimuli to precede the BIF stimuli.

We selected photographs of 22 Caucasian, 11 Japanese-American and 11 Japanese national targets and used the same 44 targets for both the JACFEE and JACNeuF sets. These sets included 44 photographs with neutral expressions and 44 photographs with facial expressions, which included anger, disgust, surprise, happiness, sadness, fear, and contempt.
Along with these photographs, we added 22 stimuli that had “You” written in the middle. 88 photographs of the JACFEE and JACNeuF sets and these 22 “You” stimuli were presented at random to each subject to randomize the nationalities of the targets and the facial expressions displayed. Each of the 110 BIF items was presented after one of the JACFEE, JACNeuF, or “You” stimuli, and each of these sets was randomized for each study as well.

Ethnicity Scale
For the purpose of analyzing the impact of the degree to which the subjects are acculturated to the American culture on their mentalization of our targets’ behaviors, we used the General Ethnicity Questionnaire (GEQ) which measures the degree to which subjects identify with American culture. This measurement was originally developed by Jeanne L. Tsai to study Chinese American’s identification as being Chinese or American (Tsai, Ying & Lee, 2000). Numerous studies by Tsai and others have shown that the GEQ is a valid measurement of cultural affiliation and acculturation.

Procedure
For the purpose of this study, the subjects were told that the study investigates the visual perception of faces. They were told that they will see photographs of different people or a screen with “You” written on it. They were then told to think of the following actions presented to be that performed by the targets on the photograph or themselves. They were told that there are different accurate interpretations of a behavior, and asked to select which of the two options provided in the BIF they think best describes the targets or their own behaviors.

These subjects were presented with a random stimulus from the set of the JACFEE, the JACNeuf, or “You” stimuli for 1300 milliseconds. They were then presented with one of
the BIF items. After each of their answers, the subjects saw a fixation point—a cross in the middle of the screen—for 650 milliseconds before being presented with another set of stimulus, BIF, and fixation point.

RESULTS

BIF scores calculation

Subjects received a point for each mentalistic (versus mechanistic) description chosen. Mentalization was calculated as the proportion of BIF items for which participants chose mentalistic descriptions within each class of targets. Thus, separate BIF scores were calculated for Caucasian American, Japanese American, Japanese national targets and for oneself.

BIF score for culture, race, and emotions

A 2 x 2 x 3 mixed-model ANOVA with repeated measures on three factors—subject race (Asian vs. Caucasian), target culture (Caucasian American, Japanese American, Japanese national) and expression (neutral vs. emotional)—were conducted to test our hypothesis that race will influence the subjects’ mentalization of racial in-group and out-group members. Table 4 shows the summary of the results. There is a moderately significant two-way interaction between target culture and subjects race, F (2, 74) = 2.192, p=0.119. However, the three way interaction of emotion, poser’s culture, and subject’s culture is not significance, F(2, 74) = 0.938, p=0.396.

We ran another 2 x 2 x 2 mixed-model ANOVA with repeated measures on the same three factors but with only two levels of target culture: Japanese American and Japanese national. Table 5 represents the summary of the results from this ANOVA. The results reveal
that there is a more significant interaction between target culture and subject race, $F(1, 37) = 4.047, p=0.052$. The BIF scores differed significantly between Caucasian American and Asian American subjects based on the targets’ cultures—Japanese or Japanese American. More specifically, Asian American subjects mentalized Japanese American targets more than Japanese national targets (See Figure 2). On the other hand, Caucasian subjects did not differ in their mentalization of Japanese national and Japanese American targets.

Moreover, there is a significant interaction between target culture and emotion, $F(1, 37) = 5.030, p=0.031$. This shows that Caucasian Americans and Asian Americans mentalized Japanese and Japanese-American actors differently when the targets showed emotional expressions than when they had neutral expressions. More specifically, Japanese American targets showing emotional expressions were mentalized more than Japanese national targets for both Caucasian and Asian Americans (See Figure 3). No differences were observed for targets showing neutral expressions.

Paired samples T-statistics show that there are significant differences in the ways that subjects mentalized targets showing emotional expressions and neutral expressions for all cultures except for Japanese targets (See Table 6). Moreover, the subjects’ mentalization of Japanese national and Japanese American targets’ neutral expressions were not significant, $t(38)=-0.104, p=0.918$, whereas the subjects’ mentalization of Japanese and Japanese American’s emotional expressions were significantly different, $t(38)=-3.127, p=0.003$. This shows that Caucasian and Asian American subjects can distinguish among Japanese nationals and Japanese American targets showing emotional facial expressions.
DISCUSSION

The results of the analysis revealed some interesting patterns regarding Asian American’s mentalization of cultural and racial in-group members. These findings suggest that mentalization is influenced by the race and the culture of a target. In general, Asian American participants mentalized Japanese American targets more than Japanese national targets regardless of emotional expression. All targets were mentalized more when showing emotional expressions than neutral expressions. Consistent with the theory of nonverbal accents, participants only distinguished Japanese nationals from Japanese Americans when they showed emotional expressions: Japanese American targets were mentalized more than Japanese national targets when showing emotion.

Lack of strong significance in our findings can be explained by some of the characteristics of what it means to be Asian American. First is the importance of understanding what it means to hold an Asian American identity. We identified everyone who came to the United States before they turned 8 years old as Asian American and everyone else as Asian nationals. However, Cheryan and Tsai (2006) describe the difficulty of studying Asian American’s ethnic identity. One of the biggest difficulties is due to the differences between U.S. born Asian Americans and foreign-born Asian Americans. The Asian American identity, they argue, “might not be embraced to the same degree by foreign-born immigrants” because they might have different levels of attachments to their home country (Cheryan & Tsai, 132). In addition, there are generational differences among Asian Americans in their identification with American and Asian cultures.

However, Cheryan and Tsai (2006) also state that “many Asian Americans have a sense of belonging to a pan-Asian race and of having pan-Asian values” (Cheryan & Tsai, 133). If this is the case, the research outlined in this paper is particularly important as it could
be useful in understanding the racial and cultural components of ethnic identification for Asian American individuals. It is important to question if the degree to which they pride in their respective home country as well as the United States, and the practice of Asian values have any influence on the extent to which they identify with Asian or American ethnic identity.

In addition, Cheryan & Monin (2005) studied identity denial which often threatens Asian American of their in-group membership of being American, such as through questions such as “Where are you really from?” and “Do you speak English?” (Cheryan & Monin, 717). When Asian Americans received the threat of identity denial through such questions, they tried to demonstrate their American identity by displaying their cultural knowledge of being American, such as listing more American TV shows and taking longer time in the process of listing as many TV shows as they know than those Asian Americans who did not receive the identity denial as well as the White American subjects. Also, their findings suggest that the threat of identity denial leads Asian Americans to respond by stating that they participate in more American practices, although their pride in America was unaffected by the threat.

Asian Americans who participated in our study may have had various levels of identity denials in the past, and subsequently have acquired different levels of their American identity. The greater the threat they have faced may have led them to identify with only Japanese American targets and not significantly with Caucasian American or Japanese national targets. In such case, culture is the more salient feature of in-group and out-group identification than race itself, as the Asian race serves to justify their identity denial whereas the Asian American culture does not.

Lastly, we had a small sample size of Asian Americans in this study (N=11). The significance levels were not as strong and hence we can only provide tentative conclusions as
to the implications of our findings. We have collected additional data on 17 Asian Americans for further analysis, and we hypothesize that we will see stronger findings to support our hypothesis.

Future studies that have balanced and greater number of Asian-Americans will be crucial to the study of mentalization and would improve our understanding of how not only race but also culture influence human’s tendency to perceive other people’s behaviors. A more complete study would aid our understanding of potential problems in intercultural interactions in which racial or cultural out-groups could be dehumanized and further pressured with stereotypes, biases, and prejudices that may be inherently embedded in these interactions.

References


Appendix I

Informed Consent Form

My name is Hae Min Byeon and I am a psychology major currently conducting an experiment for Research Methods and Statistics class.

Subjects in this study will read about different everyday activities and would be asked to choose between two possible descriptions of the activity. There are no right or wrong answers, and the subjects will be asked to go with their gut instincts when making their choices. The entire experiment should take no longer than 15 minutes.

As a subject, there are no foreseeable risks or discomforts. To maintain confidentiality, your name will remain anonymous and will not be used in result reports. Only group analyzed data will be used. Your will be identified as a subject number only.

If you wish to withdraw from the experiment you may choose to do so at any time without incurring any penalty.

Following the experimentation session, we will answer any questions or address any concerns you may have. Also, if you are interested, we will be available to discuss with you the ultimate findings of our study.

If you have any questions or concerns please do not hesitate to contact me or Professor Rebecca Ryan, howardd@georgetown.edu, the supervisor of this research.

Hae Min Byeon
Hmb36@georgetown.edu
(202) 577-1775

By signing below, the subject agrees to voluntarily participate in this study and understands that he or she may refuse to participate or withdraw at any time without penalty.

Subject’s Printed Name __________________________________________

Subject’s Signature________________________________________ Date ____________

Experimenter’s Signature ___________________________ Date ______________
Appendix II

Action Description Questionnaire

Subject # __________________

Please read the paragraph below carefully.

Actions can be described in many different ways. For example, the action of “sending an email” can be described as “pressing keys on a keyboard,” “keeping in touch with someone,” taking advantage of the Internet,” or “composing a message.” All of these descriptions are accurate. A person may choose to use one description over another depending on various factors.

PART I: INSTRUCTIONS
Below you will see a series of everyday behaviors with two possible descriptions listed beneath each of them. Your task is to place a check next to the one that you think best describes the behavior. Please go with your gut instinct when making your choice. There are no right or wrong answers!

First read the following description of Kenta Yamamoto:
Kenta Yamamoto is a 20-year-old student at a public university. He majors in economics, and he is also interested in journalism. Outside of class he enjoys judo the most and spends most of his time practicing for the upcoming judo competition. On weekends Kenta likes to go to parties and occasionally goes to karaoke with his friends. Kenta hopes to either go to graduate school or work in journalism after he graduates.

Please imagine that Kenta, the man who you just read about in the vignette is the person performing these behaviors. If Kenta were doing the following actions, which of the two descriptions would apply best to what he was doing?

1. Making a list
   ______ Getting organized
   ______ Writing things down

2. Reading
   ______ Following lines of print
   ______ Gaining knowledge

3. Joining the Army
   ______ Helping the Nation’s defense
   ______ Signing up for an organization

4. Washing clothes
   ______ Removing odors from clothing
   ______ Putting clothes into the machine
5. **Picking an apple**
   - Getting something to eat
   - Pulling fruit off of a branch

6. **Chopping down a tree**
   - Swinging an axe
   - Getting firewood

7. **Measuring a room for carpeting**
   - Preparing to remodel
   - Using a yardstick

8. **Cleaning the house**
   - Displaying one’s cleanliness
   - Vacuuming the floor

9. **Painting a room**
   - Applying brush strokes to the wall
   - Making the room look fresh

10. **Paying the rent**
    - Maintaining a place to live
    - Writing out a check

11. **Caring for houseplants**
    - Watering plants
    - Making the room look nice

12. **Locking a door**
    - Putting a key in the lock
    - Securing the house

13. **Voting**
    - Influencing the election
    - Marking off a ballot
PART II INSTRUCTION

Below you will see a series of everyday behaviors with two possible descriptions listed beneath each of them. Your task is to place a check next to the one that you think best describes the behavior. Please go with your gut instinct when making your choice. There are no right or wrong answers!

First read the following description of Spencer Bennet:

Spencer Bennet is a 20-year-old student at a large state university. He majors in biology, and he is also interested in engineering. He enjoys spending his time outdoors with his housemates, and spends most of his as a student group officer organizing events. On weekends Spencer and his housemates occasionally hold house parties. Spencer plans to take a year off after graduating and travel or get an internship.

Please imagine that Spencer, the man who you just read about in the vignette is the person performing these behaviors. If Spencer were doing the following actions, which of the two descriptions would apply best to what he was doing?

1) Climbing a tree
   ______ Getting a good view
   ______ Holding on to branches

2) Filling out a personality test
   ______ Filling out scales
   ______ Revealing what you are like

3) Tooth brushing
   ______ Preventing tooth decay
   ______ Moving a brush against one’s teeth

4) Taking a test
   ______ Demonstrating one’s knowledge
   ______ Answering questions

5) Greeting someone
   ______ Saying hello
   ______ Showing friendliness

6) Resisting temptation
   ______ Saying “No”
   ______ Showing moral courage

7) Eating
   ______ Getting nourishment
   ______ Chewing and swallowing
8) Growing a garden
   ______ Planting seeds
   ______ Getting fresh vegetables

9) Traveling by car
   ______ Following a map
   ______ Seeing the countryside

10) Having a cavity filled
    ______ Protecting your teeth from damage
    ______ Going to the dentist

11) Talking to a child
    ______ Teaching something to the child
    ______ Using simple words

12) Pushing a doorbell
    ______ Moving a finger
    ______ Seeing if someone is at home

13) Taking a drink
    ______ Quenching one’s thirst
    ______ Pouring liquid down one’s throat
APPENDIX III

Please provide this information for our records:

Age:

Sex:

Ethnicity (circle one):
   Hispanic or Latino
   Not Hispanic or Latino

Race (circle one):
   American Indian/ Alaska Native
   Asian
   African American
   Pacific Islander
   White
   More than one race (specify)

Major/Minor:

Thank you for your participation!
Table 1

Mean and Standard Deviation of Mentalization Score for Vignette-condition and Subject’s Race

<table>
<thead>
<tr>
<th></th>
<th>In-group</th>
<th></th>
<th>Out-group</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Asian</td>
<td>7.761</td>
<td>0.456</td>
<td>7.848</td>
<td>0.439</td>
</tr>
<tr>
<td>Caucasian</td>
<td>7.591</td>
<td>0.660</td>
<td>7.364</td>
<td>0.635</td>
</tr>
</tbody>
</table>

Table 2

Observed F-ratio and the Level of Significance for Between-Subjects Variable of the Subject’s Race (Caucasian and Asian)

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject’s race</td>
<td>0.265</td>
<td>0.608</td>
</tr>
</tbody>
</table>

Table 3

Observed F-ratio and the Level of Significance for Within-Subjects Variable of the Vignette-conditions (the In-group and the Out-group)

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vignette</td>
<td>0.023</td>
<td>0.881</td>
</tr>
<tr>
<td>Vignette * Subject’s race</td>
<td>0.114</td>
<td>0.737</td>
</tr>
</tbody>
</table>

Table 4

A 2 x 2 x 3 (subject race x target expression x target culture) ANOVA

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion</td>
<td>3.791</td>
<td>37</td>
<td>0.059*</td>
</tr>
<tr>
<td>Target culture</td>
<td>2.737</td>
<td>37</td>
<td>0.071*</td>
</tr>
<tr>
<td>Target culture * Emotion</td>
<td>2.078</td>
<td>74</td>
<td>0.132</td>
</tr>
<tr>
<td>Target culture * Subject race</td>
<td>2.192</td>
<td>74</td>
<td>0.119</td>
</tr>
<tr>
<td>Target culture * Subject race * Emotion</td>
<td>0.938</td>
<td>74</td>
<td>0.396</td>
</tr>
</tbody>
</table>
Table 5

A 2 x 2 x 2 ANOVA excluding Caucasian targets

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion</td>
<td>2.390</td>
<td>37</td>
<td>0.131</td>
</tr>
<tr>
<td>Target culture</td>
<td>5.016</td>
<td>37</td>
<td>0.031**</td>
</tr>
<tr>
<td>Target culture * Subject race</td>
<td>4.047</td>
<td>37</td>
<td>0.052*</td>
</tr>
<tr>
<td>Target culture * Emotion</td>
<td>5.030</td>
<td>37</td>
<td>0.031**</td>
</tr>
<tr>
<td>Target culture * Subject race * emotion</td>
<td>2.269</td>
<td>37</td>
<td>0.140</td>
</tr>
</tbody>
</table>

Table 6

T-statistics and level of significance for target’s ethnicity by expression

<table>
<thead>
<tr>
<th>BIF Scores</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA neutral – CA emotional</td>
<td>-2.210</td>
<td>38</td>
<td>.033**</td>
</tr>
<tr>
<td>J neutral – J emotional</td>
<td>-.860</td>
<td>38</td>
<td>.395</td>
</tr>
<tr>
<td>JA neutral – JA emotional</td>
<td>-2.771</td>
<td>38</td>
<td>.009**</td>
</tr>
<tr>
<td>J neutral – JA neutral</td>
<td>.113</td>
<td>38</td>
<td>.911</td>
</tr>
<tr>
<td>J emotional – JA emotional</td>
<td>-1.889</td>
<td>38</td>
<td>.067*</td>
</tr>
</tbody>
</table>

CA = Caucasian-American, JA = Japanese American, J = Japanese
Figure Captions

Figure 1. Mentalization scores of the in-group and the out-group for Asian and Caucasian subjects

Figure 2. Caucasian and Asian American subjects by Japanese national and Japanese American targets across expressions

Figure 3. Japanese national and Japanese American targets by expressions across subjects