

Whodunit?: How Psychological Distance Influences Stereotyping

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### Abstract

Past research dealing with stereotyping has not explored how different kinds of distance between the observer and the target might affect the application of stereotypes to the target. The present study examined social distance and physical distance as separate variables. Vignettes were used to test if participants were more likely to stereotype an ethnic minority target by rating the target as more likely to commit an offense. One of the scenarios yielded significant results showing that participants rated a Latino as more likely to cheat on a test, but only when he was either physically distant (in a remote location) or more socially distant (attending a different university in the same city as the participants). This has significance to judicial processes, in that it suggests a jury of the suspect's peers or the distance between the trial and where the offense took place could potentially affect the outcome of a trial.

### Whodunit?: How Psychological Distance Influences Stereotyping

Stereotyping affects everything from how we interact with others to how we define ourselves. Members of some disadvantaged groups may do poorly on tests even if they do not believe the stereotype of their inferiority (Keller, 2007). Equally qualified job applicants with names that suggest they are a racial minority receive fewer call-backs for interviews (Bertrand & Mullainathan, 2004). People may judge a suspect as guilty of a crime if they are a racial minority more often than if they are not, even if the situation is exactly the same (Bodenhausen, 1990). From the classroom to the courtroom, people are barraged with stereotypes without even being aware of them. Due to the potentially drastic consequences, it is important to understand the mechanisms underlying stereotyping.

Defined as "over-simplified mental image[s] of some category of person, institution or event which is shared, in essential features, by large numbers of people," stereotypes are also related to prejudice toward any representative of a given group (Stallybrass, 1977, p.601). Evidence of stereotyping is found in research about processes of in-groups (groups to which a given person belongs) and out-groups (groups to which a given person does not belong). People tend to think of an out-group as more homogeneous than an in-group, or, to put it differently, between-group differences are exaggerated and within-group differences are minimized, creating stereotypes (Taylor, Fiske, Etcoff, & Ruderman, 1978). Another way to look at this idea is through the concept of social distance, which is any personal or demographic variable in which people are either different or similar (for example, race or ethnicity). The more socially distant a target is from an observer, the more likely the observer could be to believe that the target has perceived homogeneous qualities of his or her out-group. In other words, more social distance could lead to more stereotyping.

This idea is consistent with Construal-level theory (CLT; Trope & Liberman, 2003), which states people use a more global thought process or think more abstractly about social objects when the objects are perceived to be more psychologically distant from them, whether by time, social distance, or physical distance. Conversely, social objects that are psychologically close cause people to think using more localized processes, or in more concrete ways. Stereotyping would be a global process, whereas piecemeal information would be more of a local process (Förtscher, Liberman, & Shapira, 2009).

As an illustration of this idea, Henderson and colleagues (2006) gave participants essays that were either considered to be situationally constrained or not (e.g., the author was forced to write the essay or s/he chose to write the essay). In one condition, participants were told a target was either instructed to write an essay in support of senior comprehensive exams at NYU, or to express his or her opinion on senior comprehensive exams at NYU. Additionally, the scenario either occurred at NYU's Washington Square campus or in Italy for an NYU study abroad program, manipulating physical distance as a variable. When asked to rate whether the author would be likely to behave in a way congruent with the attitudes of the essay (e.g., the author would vote for senior comprehensive exams), participants attributed behavior to the author's disposition when the behavior was in physically distant scenarios and attributed behavior to the situation constraint in physically near scenarios. This phenomenon is a form of stereotyping, because internal assumptions are made about the essay author without information about the author's true opinions about comprehensive exams. Because stereotypes are abstract ideas, CLT can be extended to suggest an individual is more likely to endorse stereotypes about other individuals when the other individuals are farther away than when they are closer to the

individual. Physical distance created a psychological distance which affected the way the participants thought about an individual's behavior.

Previous research has not examined the potential effect of physical distance between the person who may apply a stereotype and the object of the stereotype. For example, it is possible someone is more likely to say African-Americans are more likely to be criminals when referring to people in that group who are far away, compared to people in that group who live in the same town, even if that person does not know any members of that group in either location.

The present study examined the effects of physical and social distance on stereotypes by using a paradigm adapted from Bodenhausen (1990). Bodenhausen (1990) gave participants scenarios in which a person was accused of committing a crime to examine if stereotypes influence how participants rated the probability of a suspect's guilt. Participants were presented with ambiguous evidence in the scenario with the suspect's name manipulated to indicate membership in either a stereotyped group (e.g., Roberto Garcia) or a non-stereotyped group (e.g., Robert Garner). In addition to manipulating the suspect's name in the scenario, the present research manipulated where the crime took place, either in Austin (local condition) or another city (distant condition) that is somewhat equivalent in perceived atmosphere and crime. Also, to prevent confounding physical distance with social distance, social distance of the suspect was manipulated by telling participants he either attended to the same school as them (e.g., UT) or a different school that was very close to campus (e.g., Concordia University). Students may identify with being a UT student differently from how they would relate to other students in the Austin area, and analyses will be performed to test this idea. This creates a type of social distance without physical distance that would occur if the study used a university outside of Austin. Participants will rate the probability of guilt of the suspect in the scenario. Results of the

present study should be consistent with CLT (Trope & Liberman, 2003), therefore it is hypothesized participants will be more likely to rate the suspect from the stereotyped group as guilty in the distant condition than the same suspect in the local condition.

## Method

### *Participants*

Participants were 151 male and female college students at the University of Texas at Austin. Their ages ranged from 18-26 years old ( $M = 19.61$ ,  $SD = 1.28$ ), and there were 78 males and 73 females. Their reported ethnicities were 42 Asian (27.8%), 40 White (26.5%), 35 Hispanic (23.2%), 18 Mixed Ethnicities (11.9%), 14 African American (9.3%), and 2 Other (1.3%). Participants were recruited by tabling in busy areas of campus, and were compensated with either a bag of chips or partial course credit. All participants were treated in accordance with APA ethical guidelines.

### *Materials*

The instructions, scenarios, and questions for the study (see Appendices A, B, & C) were developed using scenarios from Bodenhausen (1990). In addition to the original variable of suspect's race (manipulated by using a stereotyped or non-stereotyped name), the variables of physical distance (local or distant location of events) and social distance (same institution as the participants or different institution) have been added for the purposes of the present study, resulting in eight conditions with each possible combination of the three independent variables (see Table 1).

The materials consisted of a four page packet. The first page included instructions and sets up the deception for the experiment by informing participants that it was a study about student judicial processes (see Appendix A). The following two pages were two different

scenarios of student misconduct (see Appendix B, with variables underlined). On the same pages as the scenarios were questions about the guilt of the suspect and how the participant related to the suspect and the situation (see Appendix C). To reduce the likelihood that participants might identify the intent of the study, both of the assigned scenarios were always the same condition for any given participant. For example, a participant might receive a packet with two stereotyped suspects who both attended Concordia University at the Port Aransas campus (see Appendix B). The difference between the two scenarios was the incident of misconduct. One scenario was about cheating on a test, and the other is a case of physical assault. Names of the suspects had to be different for the scenarios despite being the same condition so they would appear credible to participants.

Other questions (see Appendices C and D) were used as manipulation checks for the physical and social distance variables, as well as to gauge how similar the participant feels to the suspect, and for demographic purposes. Questions of a similar nature were made into composite variables.

### *Procedure*

Participants were recruited from high-traffic areas on campus, such as part of a residence hall dining area where students tended not to be in a hurry to go to class. Two research assistants sat at a table calling out, “Take a survey for a bag of chips!” Interested passersby were given consent forms. After giving consent, participants were randomly assigned to one of the eight conditions (see Table 1) based on different combinations of the three variables. The researcher explained responses would be anonymous because they would be placed in a ballot box ensuring anonymity. Participants were told the purpose of the study was to compare how college students and the administration differ in disciplinary decisions of on-campus misbehavior.

After reading the directions, participants read a scenario about an ambiguous case brought to the student judiciary board. They will then answer questions relating to the suspect's guilt, as well as other questions testing the manipulations of physical and social distance. They repeated this procedure a second time after reading a second scenario. Scenarios were placed in a random order to reduce order effects. At the end of the packet, participants completed demographic measures (see Appendix D). Once all questions were completed, participants placed their responses in the ballot box. Participants were debriefed and gave active consent once they were told the true nature of the study. Finally, they received their chips or released their information to receive class credit, and were thanked for their participation.

### Results

The study was a 2 (suspect's race; white or ethnic minority) x 2 (physical distance; local or far away) x 2 (social distance; same institution as the participants or a different institution) between-subjects design. The dependent variable was the participants' composite rating of the suspect's guilt, as measured by averaging four related questions on a Likert scale of 1-7 (see Appendix C).

ANOVAS were performed to test differences across the three variables. A composite variable was made of the items relating to the suspect's guilt (see the first four questions of Appendix C). The Cronbach's alphas for the four items of the cheating scenario and the assault scenario were 0.722 and 0.825, respectively. T-tests were performed to see if the social distance manipulation affected participants' reported relatedness to the suspect, but these results were not significant.

In the cheating scenario (see Scenario A of Appendix B), the stereotyped suspect was rated as significantly more likely to be guilty than the non-stereotyped suspect when the incident



was set in a physically distant location in the cheating scenario [ $F(1,150) = 5.257, p = 0.023$ , see Table 2 for means and Figure 1]. Additionally, the stereotyped suspect was rated as significantly more likely to be guilty than the non-stereotypical suspect when the suspect was more socially distant from the participant in the cheating scenario [ $F(1,150) = 4.282, p = 0.040$ , see Table 3 for means and Figure 2]. When the model was corrected for how anonymous the participants felt, results remained significant for both the interaction between social distance and suspect name [ $F(1,150) = 4.151, p = 0.043$ ] and between physical distance and suspect name [ $F(1,150) = 5.488, p = 0.021$ ]. In an analysis that corrected for participant identification with the Latino community, results also remained significant for both the interaction between social distance and suspect name [ $F(1,150) = 4.542, p = 0.035$ ] and between physical distance and suspect name [ $F(1,150) = 6.912, p = 0.010$ ].

For the assault scenario (see Scenario B of Appendix B), the ANOVA yielded no significant interactions between the suspects' name and which university the suspect attended [ $F(1,150) = 2.902, p = 0.091$ , see Table 2 for means]. There was not a significant interaction between the suspects' name and the physical distance of the scenario, either [ $F(1,150) = 0.175, p = 0.676$ , see Table 3 for means].

T-tests were also performed to see any effects of participant race on the ratings of guilt. The results were non-significant for all analyses performed, including whites compared to all other groups, African-Americans and Latinos together compared to all other groups, Latinos only compared to other groups, and African-Americans compared to all other groups. Similar analyses were performed to test the level to which participants related to the suspect's ethnicity and if that affected results. For the cheating scenario, identifying with the Latino community was weakly correlated with ratings of guilt,  $r(148) = -0.121, p = 0.142$ . Identifying with the

African-American community was weakly correlated,  $r(147) = -0.342, p < 0.001$ . Identity with the White community was also weakly correlated with responses,  $r(147) = -.106, p = 0.199$ . For the assault scenario, identifying with the Latino community was weakly correlated with ratings of guilt,  $r(148) = 0.128, p = 0.118$ . Identification with the African-American community was weakly correlated,  $r(147) = -0.127, p = 0.122$ . Finally, identity with the White community was also weakly correlated,  $r(147) = -.076, p = 0.359$ .

### Discussion

The main hypothesis, that participants would be more likely to stereotype an ethnic minority by rating the target as more likely to commit an offense, was supported in only one of the two scenarios. In the academic dishonesty case, the Latino suspect who either did not attend the same university as the participants or was in a remote location was rated more likely to be guilty. It is interesting to note that the white suspect was rated slightly more likely to be guilty when the scenario was either set close to the participant or the suspect attended the same school. Even though this difference was non-significant, the result was not expected. Another important detail to note is that participants' own race and relation to other ethnicities are also forms of social distance, so it was unexpected that those measures did not influence the stereotyping of the suspect. The exception to this was that identity with the African-American community appeared to predict the results of the cheating scenario. This was a surprise because the scenario did not include an African-American suspect. However, this particular finding may just be due to chance, considering that the correlation was weak.

One possible explanation for the fact that the assault scenario did not find a significant result is that the scenario may not have achieved the manipulation of race. "Marcus Washington" is more ethnically ambiguous than "Jose Garcia." Although Bodenhausen (1990) pilot tested the

name before using it in the actual study, there may be an effect of the region that the participants were found (Michigan or Texas). Alternatively, name trends may have changed over the past twenty years. Another possibility is that participants were hesitant to lay blame on the suspect because the evidence was ambiguous, and as an assault, it would have resulted in harsher punishment than cheating on a test. This is also supported by the fact that the means were lower for both of the suspect names in the scenario, and the original Bodenhausen (1990) study had a similar finding with the assault scenario yielding less rated guilt than the cheating scenario.

Future research in this area may seek to better define the different ways people identify themselves and how this creates more dimensions of social distance. For example, we do not know if similar physical appearance between a judge and a suspect could affect an outcome. Furthermore, differences in effects of different types of psychological distance are not known (Trope & Liberman, 2010). Breaking down more and more of these dimensions can help us to understand thought processes people use to make decisions or inferences relating to others.

It appears that several different areas of research examine similar phenomena in different ways. Stereotyping is a type of high-level construal (Förster et al., 2009), and outgroups tend to be stereotyped more (Taylor et al., 1978). These phenomena could be explained by the fact that outgroups are more socially distant from the observer (Trope & Liberman, 2010). If members of outgroups are the recipients of more stereotypes because they are more socially distant from the observer, then there would be great benefit to combination of these three areas.

If different psychological distance variables are found to affect judgment of others, then there are many implications for processes in the legal system. If being a peer of the jury and holding a court case in a location that is close to where the offense occurred can affect the outcome of a trial in different ways for defendants of different races, then courtroom policies and

procedures should be examined thoroughly for these biases, and consistent protocol should be enforced.

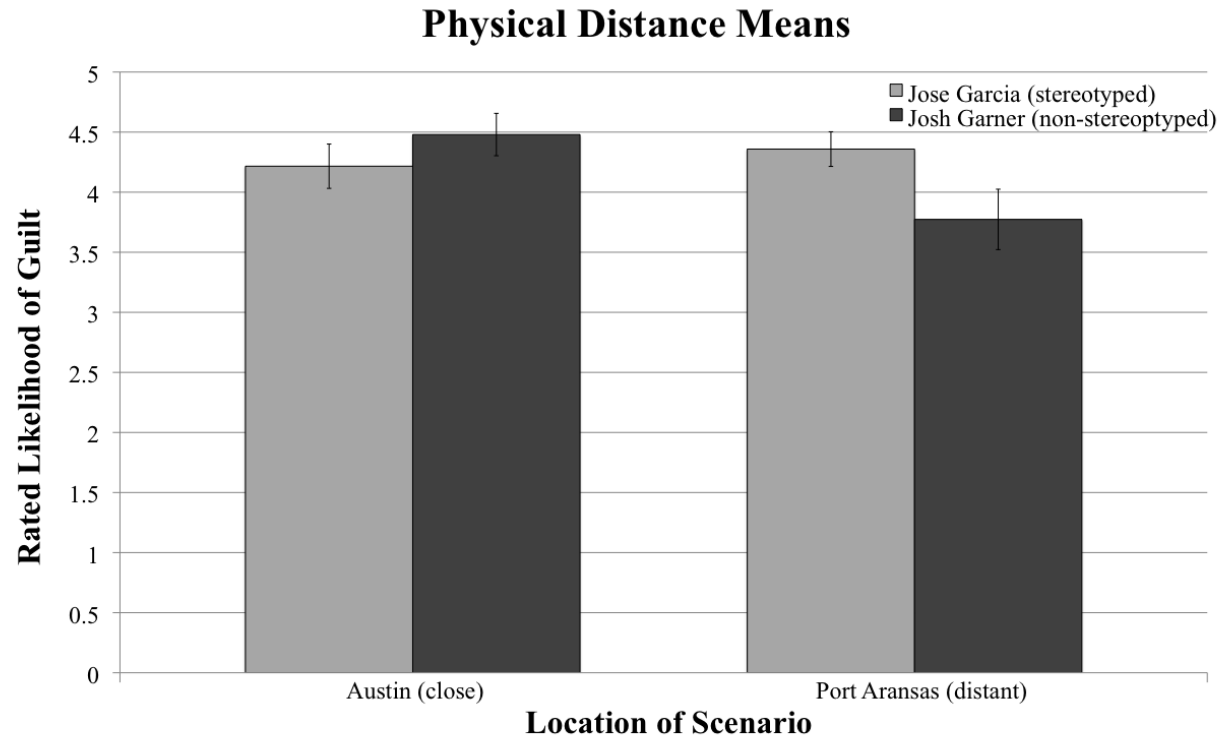
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### Figure Captions

Figure 1. Mean ratings of guilt across manipulated physical distance, with standard error bars, for the cheating scenario.

Figure 2. Mean ratings of guilt across manipulated social distance, with standard error bars, for the cheating scenario.



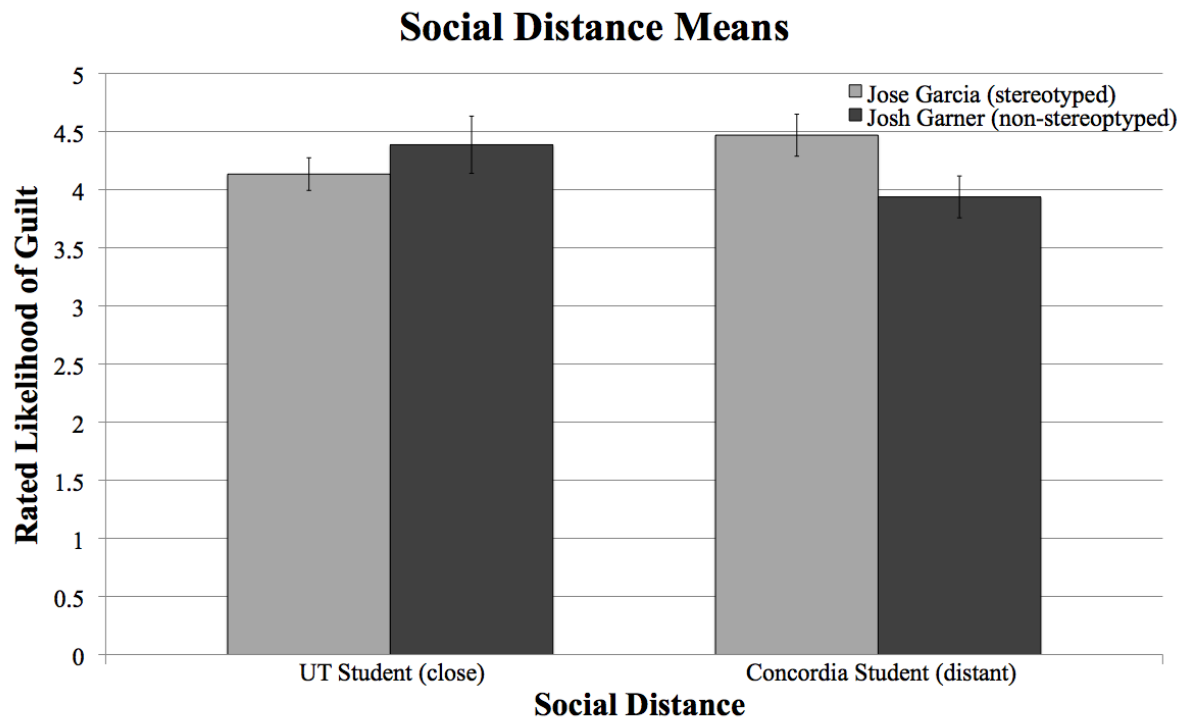




Table 1. The eight experimental conditions based on combinations of both levels of the three independent variables

| <b><u>Physical Distance</u></b> |                   |              |                   |
|---------------------------------|-------------------|--------------|-------------------|
| Austin                          |                   | Port Aransas |                   |
| Name                            | Social Distance   | Name         | Social Distance   |
| Jose Garcia                     | attends UT        | Jose Garcia  | attends UT        |
|                                 | attends Concordia |              | attends Concordia |
| Josh Garner                     | attends UT        | Josh Garner  | attends UT        |
|                                 | attends Concordia |              | attends Concordia |

Table 2. Means by physical distance condition and suspect name.

| <b><u>Cheating Scenario</u></b> | <b>Austin (close)</b>             | <b>Port Aransas (distant)</b>     |
|---------------------------------|-----------------------------------|-----------------------------------|
| <b>Jose (Stereotyped)</b>       | <i>M</i> = 4.22, <i>SD</i> = 1.12 | <i>M</i> = 4.36, <i>SD</i> = .98  |
| <b>Josh (Non-stereotyped)</b>   | <i>M</i> = 4.48, <i>SD</i> = 1.07 | <i>M</i> = 3.77, <i>SD</i> = 1.42 |
| <hr/>                           |                                   |                                   |
| <b><u>Assault Scenario</u></b>  | <b>Austin (close)</b>             | <b>Port Aransas (distant)</b>     |
| <b>Marcus (Stereotyped)</b>     | <i>M</i> = 3.45, <i>SD</i> = 1.15 | <i>M</i> = 3.64, <i>SD</i> = 1.30 |
| <b>Mark (Non-stereotyped)</b>   | <i>M</i> = 3.86, <i>SD</i> = 1.11 | <i>M</i> = 3.90, <i>SD</i> = 1.32 |

Table 3. Means by social distance condition and suspect name.

| <b><u>Cheating Scenario</u></b> | <b>UT Student (close)</b>         | <b>Concordia Student (distant)</b> |
|---------------------------------|-----------------------------------|------------------------------------|
| <b>Jose (Stereotyped)</b>       | <i>M</i> = 4.13, <i>SD</i> = 0.92 | <i>M</i> = 4.47, <i>SD</i> = 1.14  |
| <b>Josh (Non-stereotyped)</b>   | <i>M</i> = 4.39, <i>SD</i> = 1.41 | <i>M</i> = 3.94, <i>SD</i> = 1.14  |
| <hr/>                           |                                   |                                    |
| <b><u>Assault Scenario</u></b>  | <b>UT Student (close)</b>         | <b>Concordia Student (distant)</b> |
| <b>Marcus (Stereotyped)</b>     | <i>M</i> = 3.41, <i>SD</i> = 1.19 | <i>M</i> = 3.71, <i>SD</i> = 1.28  |
| <b>Mark (Non-stereotyped)</b>   | <i>M</i> = 4.08, <i>SD</i> = 1.02 | <i>M</i> = 3.69, <i>SD</i> = 1.33  |

## Appendix A: Adapted Bodenhausen (1990) study instructions

Instructions – Please read carefully

Recently, social scientists have become increasingly interested in the process of legal socialization, or the ways that people develop personal attitudes about misbehavior and how it should be dealt with by society. We are interested in the question of how college students' attitudes about the behavior of their fellow students are affected by the role students play in the disciplinary process. In some universities, external authorities (e.g., the administration) take the primary role as disciplinary decisions makers, while in other institutions, the students take this role themselves. We want to gauge the reactions of UT students to allegations of misbehavior so that we can understand the types of attitudes and judgments typical students like yourselves would have if you were confronted with the role of disciplinary decision maker.

On the page that follows, you will be asked to read about a case in which a student has been accused of some offense in Port Aransas, Texas, USA. The case was selected from a university in Austin, which has a remote campus location in Port Aransas. After reading the brief case summary, simply answer the questions provided.

## Appendix B: Scenarios adapted from Bodenhausen (1990) with variables underlined\*

**SUMMARY A**

This case concerns a Concordia University student, Jose Garcia. Jose is studying over 200 miles away from here at Concordia's Port Aransas campus. After this semester, he will return to the Austin campus. Jose has been accused of academic dishonesty. Specifically, a history professor at Concordia-Port Aransas suspected Jose of cheating during an examination and accused him of disrupting the classroom. The Concordia professor told the student judiciary board that during the final examination in a history course, he observed that Jose seemed to be looking at the work of students sitting in front of him and beside him. The professor asked Jose to move to an isolated chair near the front of the room as a warning. Jose became indignant, loudly stated that he was not cheating, and refused to move to a new location. When the professor insisted that he move to the other chair, Jose became very upset, shouted that he was not cheating, and stormed out of the classroom, knocking over an empty desk in the process. Other Concordia-Port Aransas students in the class verified the agitated behavior displayed by Jose. At the Port Aransas campus's student judiciary board hearing for the incident, Jose admitted to disrupting the classroom, but said he only did it because of his extreme frustration at being falsely accused of cheating, when he had in fact studied extensively and was prepared for the exam. He refused to apologize, however, unless the professor apologized for falsely accusing him of cheating.

**SUMMARY B**

Marcus Washington, a Concordia University student who is studying over 200 miles away at Concordia's Port Aransas campus for a semester-long program, has been accused of assaulting his roommate, Timothy. The two students had reportedly had many disagreements during their first few weeks as roommates, and other dorm residents at Concordia-Port Aransas have witnessed shouting matches and shoving between the two. A particular source of disagreement was Marcus's tendency to play music that Timothy found disagreeable and offensive, often at loud volumes. On the day of the assault, they had another verbal confrontation when one of Marcus's favorite compact discs turned up missing. After denying that he knew anything about the disc, Timothy reports that he went to study at the Concordia library with friends. Afterwards, he headed straight back to his dorm room. By this time it was after 10 p.m. While approaching his dormitory in Port Aransas, Timothy was jumped from behind and beaten into semi-consciousness. He was taken to the emergency room, but his injuries, although painful, turned out not to be serious or permanent. There were no witnesses to the attack, and Timothy never actually saw the person who beat him. However, he is absolutely sure it was Marcus. Apparently, the attacker was not interested in robbing Timothy, because his wallet was not taken. Timothy claims Marcus

was angry with him because of their frequent disagreements and, primarily, because of their dispute about the missing compact disc. Marcus claims that he was studying at the Concordia library alone at the time of the attack, but no one could verify this claim. Timothy is so sure that Marcus was his attacker that he has filed an official grievance with Concordia's student judiciary board in Port Aransas.

\*Both example scenarios shown are the socially distant, physically distant, and stereotyped individual conditions.

#### Appendix C: Questions following each scenario

**How strong is the case against Jose Garcia?**

extremely weak    1    2    3    4    5    6    7    extremely strong

**In your own personal opinion, how likely is it that Jose Garcia cheated?**

extremely unlikely    1    2    3    4    5    6    7    extremely likely

**If you were sitting on the student judiciary board, would you recommend any disciplinary action against Jose Garcia?**

definitely no    1    2    3    4    5    6    7    definitely yes

**If no disciplinary action is taken, how likely is it that Jose Garcia might cheat or disrupt the classroom in the future?**

extremely unlikely    1    2    3    4    5    6    7    extremely likely

**While reading the scenario, how physically close did the events seem to you?**

not very close    1    2    3    4    5    6    7    extremely close

**While reading the scenario, how physically connected did you feel to the events?**

not at connected    1    2    3    4    5    6    7    extremely connected

**While reading the scenario, how much did you relate to Jose Garcia?**

not at all    1    2    3    4    5    6    7    very much

**While reading the scenario, how much did you identify with Jose Garcia?**

not at all    1    2    3    4    5    6    7    very much

**How familiar are you with Concordia University?**

not at all      1      2      3      4      5      6      7      very much

**How anonymous did you feel while doing this exercise?**

not at all      1      2      3      4      5      6      7      very much

#### Appendix D: Demographic questions

**Please provide the following information. All of your responses will remain confidential.**

Age \_\_\_\_\_

Sex (circle one)

Male

Female

Other: \_\_\_\_\_

Please select the race/ethnicity category or categories with which you most closely identify. Check as many as apply.

\_\_\_\_\_ Hispanic or Latino/a

\_\_\_\_\_ American Indian or Alaska Native

\_\_\_\_\_ Asian or Asian-American

\_\_\_\_\_ Black or African-American

\_\_\_\_\_ Native Hawaiian or Other Pacific Islander

\_\_\_\_\_ White or Caucasian

\_\_\_\_\_ Other (If other, please specify: \_\_\_\_\_)

How much do you identify with the Hispanic/ Latino/a community?

not at all      1      2      3      4      5      6      7      very much

How much do you identify with the Black or African-American community?

not at all      1      2      3      4      5      6      7      very much

How much do you identify with the White/ Caucasian community?

not at all      1      2      3      4      5      6      7      very much