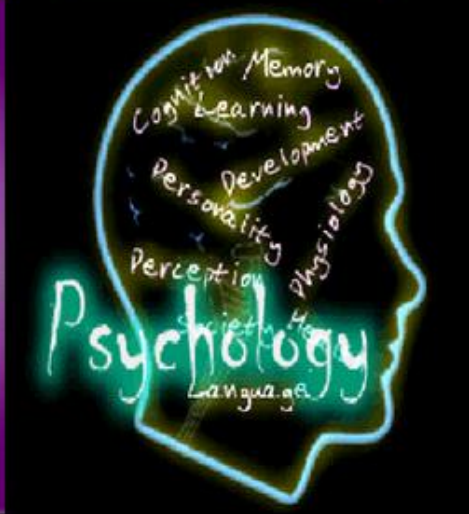


Advanced Research Methods 2010



Embracing the mysteries of the mind!

Table of Contents

Prologue	3
<i>Dr. Michiko Nohara-LeClair</i>	
Measurable Gender Differences in Moral Standards	4
<i>Jenee Sikma & Kate Warhol</i>	
Jealousy Differences among Men and Women	25
<i>Kim Howard</i>	
How Shallow Are We?	39
<i>Amber Fetsch & Jake Jalinsky</i>	
Shop Till You Drop	58
<i>Lydia J. Langley</i>	
The Relationship between Self-Esteem and Aggression	73
<i>Ashley Silverberg</i>	
An Analysis of Classroom Environment: Researcher Dress vs. Test Performance	87
<i>Ryan Holley</i>	
Perceived Racial Expectations of Children	108
<i>Jessica R. Roesslein</i>	

Prologue

The research projects conducted by students in the PSY40400 and PSY42000 classes in the fall of 2011 were particularly diverse in topic area as well as methodology. Throughout the semester, students were able to benefit from reading and hearing about each other's projects. Because of this, I believe the students had an enriching educational experience, despite the relatively small number of projects being conducted.

As always, I am very proud of the hard work the students put into their research as well as their coursework in general. It takes a lot of dedication and effort to be able to complete such fine research projects in just one semester. Reading this journal, I am certain you will agree that all of these papers serve as great examples of the high level of academic excellence our students can achieve if we just encourage them enough.

Last but not least, I would like to take this opportunity to thank our course tutor, John Gatermann, for his dedication to being so helpful and encouraging to the students throughout their research progress. I would also like to thank Maria Henriquez as well, for the hard work she put into editing this journal into its current form.

Michiko Nohara-LeClair
Course Instructor

Measurable Gender Differences in Moral Standards

Jenee Sikma & Kate Warhol¹

In 1982, Carol Gilligan tested Kohlberg's theory of moral reasoning claiming that his research favored men. Lawrence Kohlberg limited his research to studying 75 boys from adolescents through young adulthood (Kohlberg, 1981). His theory of moral reasoning stemmed from that research. The purpose of this project was to test Carol Gilligan's claims that women have different moral tendencies than men. The hypothesis for this study was that there would be measurable differences between the way men and women judge different scenarios. The survey used for this study was the Defining Issues Test 2 which included demographic information created by James Rest in 1975. Statistical significance was found in the difference between men and women in their moral tendencies. This was distinguished by comparing the participants' genders and type indicator. The results of this study supported Carol Gilligan's claim that women and men do indeed have different moral tendencies. It was found that men and women approach moral scenarios in a different manner.

Keywords: Carol Gilligan, Lawrence Kohlberg, James Rest, moral tendencies, gender differences, Defining Issues Test 2

¹ Correspondence concerning this paper should be addressed to Jenee Sikma, Lindenwood University, 209 S. Kingshighway, St. Charles, MO 63301, jls971@lionmail.lindenwood.edu; Kate Warhol, Lindenwood University, 209 S. Kingshighway, St. Charles, MO 63301, kmw968@lionmail.lindenwood.edu

The purpose of this study was to determine whether or not there are gender differences in perspectives based on scenarios involving moral decisions. The underlying principle was to test the claims Carol Gilligan made in 1982. She stated that Kohlberg's theory of moral development favored men (Gilligan, 1982). Kohlberg studied the growth of moral judgment and character over the course of 15 years primarily by tracking the same cluster of 75 boys from early adolescence through young adulthood (Kohlberg, 1981). Kohlberg proposed six different moral stages and based on the results of testing, the subjects could be placed into these different levels according to their moral judgments (Jewell, 2001).

The first stage consists of those who comply with rules in order to evade penalty. The individuals in the second stage of moral development conform in order to receive rewards or have the favor returned. For example, the saying "you scratch my back, I'll scratch yours". Those in the third stage incorporated those who simply do the accepted behavior in order to avoid disapproval. The fourth stage includes those who conform to avoid being reprimanded by the government. Those who conform to protect the high opinion of the neutral observer judging the community's wellbeing were placed in the fifth stage. The sixth and final stage included those who conform to avoid personal conviction (Kohlberg, 1981).

Gilligan put Kohlberg's theory to the test. Gilligan asked two 11-year-old children, one male and one female, the same question that Kohlberg used in determining where an individual falls on the scale of his moral development stages (Gilligan, 1982). The question related to Heinz and his wife who had a special kind of cancer. The doctors stated that there was one drug available that may save her life. It consisted of radium and the druggist who discovered it charged a price that exceeded what it cost to create the drug. He paid \$200 and charged \$2,000 for a limited amount of the drug. Heinz attempted to borrow the money from the community, but

he was still \$1000 short. When informing the druggist that his wife was on her death bed, he begged the druggist to compromise by allowing him to pay later or sell it cheaper. The druggist replied with, "No, I discovered the drug and I'm going to make money from it." The participant was then to answer whether Heinz should steal the drug or not (Rest, 1975). According to this scenario the children's answers varied significantly. Jake, the male subject, answered in a logical manner stating that the drug should be stolen, solving this problem in a mathematical matter (Gilligan, 1982). Jake stated that judgment is more black and white. His explanation was firm and he did not budge (Gilligan, 1982). Amy responded much more indecisively. She focused mainly on the relationship between Heinz and his wife, seeing the problem more as a narrative of relationships rather than as a math problem. A main focus of Amy's thought process was not that the drug should be stolen, but that Heinz and the druggist should have better communication and work the problem out between themselves (Gilligan, 1982).

Kohlberg and Gilligan are known for their recurring debate in this particular area of study (Jorgensen, 2006). Kohlberg focused more on the justice system and abiding by the laws of the government, whereas Gilligan focused more on care, empathy and compassion (Sherblom, personal communication, September 28, 2010). In Kohlberg's theory of morality, women are evaluated as developmentally inferior because of the empathy and caring aspects identified in his third moral stage (Gibbs, Arnold, & Burkhart, 1984). Women are considered to be more prominent in stage three and Kohlberg views this stage as less advanced in moral development (Gibbs et al., 1984). Amy scored a full stage lower than Jake on level of maturity according to Kohlberg's stages of morality (Gilligan, 1982). Amy's results indicated that she was between the second and third stages. According to Kohlberg, this meant that she was unable to think systematically about morality or law and was seen as powerless in the world (Gilligan, 1982).

Morality is generally thought to be the way in which a person behaves toward another (Jewell, 2001). The idea is to make it visible to an observer what steps individuals take when approaching moral predicaments (Nichols & Day, 1982). Since Gilligan claimed that Kohlberg's method favored one gender more than the other, the Defining Issues Test 2 (DIT-2) was chosen to measure the moral development of participants in this study. The DIT-2 contains questions addressing moral dilemmas, allowing the participant to think about the balance between justice and care. In regards to the DIT 2, the format of the test presents each subject with five moral dilemmas and then has questions concerning those particular scenarios (Rest, 1975). Demographic questions regarding the participants' gender, age, political views, citizenship, language, and grade level were located on the bottom of the DIT-2 test.

DIT-2 tests were administered to undergraduate men and women students at Lindenwood University in order to determine whether there are sex differences in how they score. The hypothesis for this study was that there are measurable differences between genders in accordance to moral decision making.

Method

Participants

Participants were recruited through the Lindenwood Participant Pool (LPP) as well as selected Lindenwood University undergraduate 2010 fall courses. The students participating through the LPP voluntarily signed up in a delegated time slot for the experiment. Select professors were emailed requesting permission to arrange recruitment through their classrooms. When recruiting in this manner, experimenters recited a strict verbal script to participants (see Appendix B). The students who elected to participate in the experiment through the LPP received extra credit in their introductory psychology, sociology, exercise science, and athletic

training courses. The students who chose not to partake in experiments were also given an opportunity to write a paper for the same amount of extra credit to prevent coercion. The reward given when recruiting through select fall courses consisted of candy and a verbal thank you. The total number of participants was 139 students, 56 being male and 83 being female.

The age of participants ranged from 18 to 61 years old. The greatest number of participants was seniors in college, 30.20%. Second, 27.30% were sophomores in college. Juniors followed at 25.90% while freshman participants were at 16.50%. The majority of the participants, 89.90%, were citizens of the United States leaving 10.10% who were not American citizens. English was the primary language of 92.80% of the participants, while 7.20% had a different primary language. Depending on whether the participant is more liberal or conservative, it may have influenced their moral standards. As a result, their political view was included in the demographic survey. It was found that the leading view was “neither liberal nor conservative” at 38.8%.

Materials

Different classrooms were obtained through the Lindenwood Participant Pool (LPP) in order to recruit participants. An experiment description form was used to inform the possible participant about what the study entailed. Sign-up sheet B was posted under the description to allow the participants to sign up for available time slots. Both of those forms were printed and filled out in their entirety with all appropriate information. Using a room request form, three different classrooms were obtained for three separate days. Classrooms used through the LPP all were equipped with over 15 desks and chairs. While recruiting through fall 2010 courses, Professor Bobo allowed the study to be conducted twice in rooms which also including over 15 desks and chairs. Dr. RincónGallardo and Dr. Kelly permitted researchers to enter two

classrooms with more than 20 desks and chairs.

Before the assigned day of research, the experimenters printed out an experimenters' list of participants' sheet as well as enough participant receipts for all who signed up. The experiment description form consisted of the name of the study, the experimenters' names with contact information, an outline of the study, and an estimate of the length of the study of 15 min, see Appendix B. Sign-up sheet B contained the experiment name, the experimenters responsible, the room assigned, time slots, and the dates for the experiment. The experimenters created informed consent forms explaining the rights of the participants as well as a general overview of the study they were taking part in. The Defining Issues Test, (DIT-2) by Rest, Narvaez, Thoma & Bebeau (1975), see Appendix E, was used in order to score an individual on his or her morality. The survey consisted of stories that challenged ones moral thought processes. The first question presents a scenario in which a man must choose between stealing money for his family to live or uphold the law and let his family die. The second question deals with a reporter faced with a dilemma of whether to print a story about a politician's past or to not print the story because the politician changed his life around. The third question is one in which a school board chairman has the decision to either continue or discontinue having meetings that result in violence. The fourth question refers to whether a doctor should give a patient enough morphine to kill her at her request or to not kill her. The final question is asking whether students at a university should continue to hold illegal demonstrations according to something they believe in. After reading each story, participants were to rate the presented questions in terms of its importance in that particular moral dilemma. The next process was to rank the most important top four items. A feedback letter, complete with contact information, was also produced with the purpose of debriefing each participant and creating a method for future communication if further

questions should arise, see Appendix A. Prior to any research, sufficient consent forms, surveys, experimenter's list of participant sheets, participant receipts, and feedback letters were produced in order to cover the number of those who were participating. In addition, the experimenters had sufficient ink pens and band-aids present in case of any paper cuts from the survey. Additionally, the Lindenwood University Counseling Center's number was available in case any individuals found the content to be emotionally detrimental.

Prior to conducting research through the participants from the fall 2010 courses, the experimenters visited a local grocery store to buy bags of assorted candy to bring to the classrooms. The assortment included Reeses, Starburst, Snickers and Butterfingers. Along with the candy, the appropriate forms and surveys were brought along as well. A verbal script was adhered to in order to ensure the same speech was given to each classroom (see Appendix B).

Procedure

Before conducting any research, creating and submitting an application for the Lindenwood University Institutional Review Board (IRB) to approve the study was completed. Experimenters completed an ethics test in order to recruit participants through the Lindenwood Participant Pool (LPP). An email was sent to the LPP with a request for a classroom on specific days and times. Experiment description form (see Appendix C) and sign-up sheet B were posted on the appropriate bulletin board across the hall from the LPP office (Young 407).

When using the assigned classrooms in Young Hall, the participants first showed up at the designated time. The participants filled out the information on the experimenter's participant list. After completing this task, they were given two informed consent forms (see Appendix D) one for their records and the other for the experimenter to keep. The next form given to them was a copy of the DIT-2 survey that addressed different moral dilemmas and demographic

information, see Appendix E. The survey took around 15 minutes to complete and consisted of five different questions. Upon completion of the survey, participants were debriefed about the experiment and received a feedback letter in case they would have any further questions. A participant's receipt was then given to them. Next, participants were instructed to fill out the top portion before turning it into Young 407 in order to obtain their extra credit. A verbal thank you was then administered.

For those who participated outside the classroom setting, through the fall 2010 courses, a different approach was taken. Recess, Starburst, Snickers and Butterfingers were purchased in order to compensate the volunteers for their time. Permission to conduct the study in the different classrooms was granted from different professors. The experimenters typed up a verbal script (see Appendix B) of what was said to each class so that the study was administered in the same manner to all participants. It was explained that the survey was completely voluntary and that participation was not only anonymous but would also have no reflection on one's grade in the course. The professor left the room to avoid possible coercion. An informed consent form and the survey were distributed to the students who decided to take the survey. Feedback letters and candy were handed out as the participants turned in their completed consent form and survey. The feedback letter provided contact information of the researchers, information on the study, and also thanked them for their valuable contribution.

After all data were collected the search for a scoring guide began. Unfortunately, in order to use the DIT-2 test one normally receives permission and orders the test through a scoring center offering the option to send in the data to get it scored and sent back. Through Dr. Sherblom, Dr. Thoma's contact information was obtained for assistance. All the data were entered into an SPSS program and sent to Dr. Thoma's email for scoring.

Results

The hypothesis for this study stated that there would be measurable differences between the moral tendencies between men and women, supporting Carol Gilligan's claims. The DIT-2 placed individuals into seven different stages of moral tendencies reported as the type indicator (see Appendix F). The highest percentage was predominant in maintaining norms schema, but transitional; personal interests secondary schema (Type 3) was at 28.70% (see Table 1). An independent t-test was conducted with participant's gender as the independent variable and type indicator as the dependent variable. Of the 139 participants, only 129 were included in the independent t-test. This was due to those individuals not passing the reliability check when Dr. Thoma scored the DIT-2 tests. Heterogeneity of variances was found between the scores of the two genders and equal variances were not assumed because of the difference in the percent of participants that was men versus women. As a result the degrees of freedom were adjusted accordingly. A measurable sex difference existed in type indicator was found, $t(124.577) = -3.075, p=.003$.

Discussion

Our results supported Carol Gilligan's claim that women have different moral tendencies than men. Gilligan (1982) claimed that women had more relational and indecisive moral reasoning while men had more logical and solution-based moral reasoning. Men and women in our research did show a significant difference with the means of the type indicator with men being at 2.92 and women being at 3.54.

One room in which research was conducted, an obnoxious air conditioning unit may have affected the results. This could have swayed the scores given by the participants because of the distraction variable.

The fact that all the questions were presented in the same order to all of the participants may have affected the validity of the study. Since all stories were taken in the same order it may have been beneficial to have the stories counterbalanced. Fatigue may have influenced the participants' answers towards the end of the test due its length. A possible bias may have been present if the participant was answering in terms of what was thought to be socially acceptable rather than what one believed. The effect sizes were swayed towards female participants, since 53 men and 76 women participated in this study.

A significantly longer period of time to complete the survey may have been beneficial since some of the participants may have felt rushed in the allotted time frame of fifteen minutes. Also one participant was not able to complete the test because of a language barrier, so that data were excluded as well.

This study was successful in gaining information on moral reasoning and was of great importance to the viewing of Kohlberg's theory of moral reasoning. The study also extended the views of how men and women think in moral terms, due to the finding of measurable differences.

References

- Gibbs, J., Arnold, K., & Burkhart, J. (1984). Sex differences in the expression of moral judgment. *Child Development*, 55(3), 1040-1043.
- Gilligan, C. (1982). The contribution of women's thought to developmental theory: The elimination of sex bias in moral development research and education.
- Jewell, P. (2001). Measuring moral development: Feeling, thinking, and doing. *Special Education and Disability Studies*.
- Jorgensen, G. (2006). Kohlberg and Gilligan: duet or duel? *Journal of Moral Education*, 35(2), 79- 196.

- Kohlberg, L. (1981). *The philosophy of moral development: Moral stages and the idea of justice*. San Francisco, CA: Harper and Row.
- Nichols, M. & Day, V. (1982). A comparison of moral reasoning of groups and individuals on the 'defining issues test.' *Academy of Management Journal*, 25(1), 201-208.
- Rest, J. (1975). New options in assessing moral judgment and criteria for evaluating validity.
- Sherblom, S. (2010, September 28). Qualitative Research. Lindenwood University. Interview.
- Woods, C. (1996). Gender differences in moral development and acquisition: A review of Kohlberg's and Gilligan's models of justice and care. *Social Behavior & Personality: An International Journal*, 24(4), 375.

Appendix A

Feedback Letter

Thank you for participating in our study. The survey inquiring about different demographics and moral standards was used in order to determine whether or not gender plays a role in those decision processes. The demographics were necessary in order to see the range of participants.

Please note that we are not interested in your individual results; rather, we are only interested in the results of a large group of participants, of which you are now a part of. No identifying information about you was associated with any of the findings.

If you have any questions or concerns regarding any portion of this study, please do not hesitate to bring them up now or in the future. Our contact information is found at the bottom of this letter. If you are interested in obtaining a summary of the findings of this study at a later date, please contact us and we will make it available to you at the completion of this project.

Thank you again for your valuable contribution to this study.

Sincerely,

Principal Investigators:

Kate Warhol (636)578-7350 (kmw968@lionmail.lindenwood.edu)
Jenee Sikma (618)267-8686 (jls971@lionmail.lindenwood.edu)

Supervisor:

Dr. Michiko Nohara-LeClair (636)949-4371(mnohara-leclair@lindenwood.edu)

Appendix B

Verbal Script

Upon entering into the Lindenwood University undergraduate course the researchers will first explain their project. "You are being asked to complete two tasks. You were asked to fill out a survey that requires you to read various moral scenarios and indicate how you would respond. The entire procedure should take no more than 10-15 minutes of your time. This is a voluntary experiment; you should not feel the need to have to participate in this experiment. If you would like to participate then they will receive an award of candy and a thank you after completion of survey. You was left alone in the room to avoid any coercion. We are passing out consent forms please read and sign. These sheets are the surveys for the experiment please do not start till we leave the room." Researchers will then leave the room. Researchers return to the room and debrief the participants and handout a thank you and candy.

Appendix C

Project #: _____

Experimenter's name(s): Jenee Sikma and Kate Warhol

Experimenter's contact information: (618)267-8686;(636)578-7350

Approximate amount of time experiment will take: 10-15 minutes.

Type of experiment (survey, interactive, etc.): Survey.

Experiment name: Gender and Morality

Description of the experiment: In this study, you are asked to complete two tasks. You are asked to fill out a survey that requires you to read various moral scenarios and indicate how you would respond. The entire procedure should take no more than 10-15 minutes of your time.

Appendix D

Consent Form

I, _____ (print name), understand that I was taking part in a research project that requires me to fill out a survey regarding information about my demographic information and the ways in which I would react in different moral situations. I understand that I should be able to complete this study within 10 to 15 minutes. I am aware that my participation in this study is voluntary and that I may choose to withdraw from the study at any time without any penalty or prejudice. I should not incur any penalty or prejudice because I cannot complete the study. I understand that the information obtained from my responses was analyzed only as part of aggregate data and that all identifying information was absent from the data in order to ensure anonymity. I am also aware that my responses was kept confidential and that data obtained from this study will only be available for research and educational purposes. I understand that any questions I may have regarding this study shall be answered by the researcher(s) involved to my satisfaction. Finally, I verify that I am at least 18 years of age and am legally able to give consent or that I am under the age of 18 but have on file with the LPP office, a completed parental consent form that allows me to give consent as a minor.

_____ Date: _____
 (Signature of participant)

_____ Date: _____
 (Signature of researcher obtaining consent)

Student Researcher's Names and Numbers:

Jenee Sikma
 (618)267-8686
 jls971@lionmail.lindenwood.edu

Kate Warhol
 (636)578-7350
 kmw968@lionmail.lindenwood.edu

Supervisor:

Dr. Michiko Nohara-LeClair
 Course Instructor
 (636)949-4371
 mnohara-leclair@lindenwood.edu

Appendix E

Famine— (Story #1)

The small village in northern India has experienced shortages of food before, but this year's famine is worse than ever. Some families are even trying to feed themselves by making soup from tree bark. Mustaq Singh's family is near starvation. He has heard that a rich man in his village has supplies of food stored away and is hoarding food while its price goes higher so that he can sell the food later at a huge profit. Mustaq is desperate and thinks about stealing some food from the rich man's warehouse. The small amount of food that he needs for his family probably wouldn't even be missed.

[If at any time you would like to reread a story or the instructions, feel free to do so. Now turn to the Answer Sheet, go to the 12 issues and rate and rank them in terms of how important each issue seems to you.]

Reporter— (Story #2)

Molly Dayton has been a news reporter for the *Gazette* newspaper for over a decade. Almost by accident, she learned that one of the candidates for Lieutenant Governor for her state, Grover Thompson, had been arrested for shop-lifting 20 years earlier. Reporter Dayton found out that early in his life, Candidate Thompson had undergone a confused period and done things he later regretted, actions which would be very out-of-character now. His shop-lifting had been a minor offense and charges had been dropped by the department store. Thompson has not only straightened himself out since then, but built a distinguished record in helping many people and in leading constructive community projects. Now, Reporter Dayton regards Thompson as the best candidate in the field and likely to go on to important leadership positions in the state. Reporter Dayton wonders whether or not she should write the story about Thompson's earlier troubles because in the upcoming close and heated election, she fears that such a news story could wreck Thompson's chance to win.

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

School Board— (Story #3)

Mr. Grant has been elected to the School Board District 190 and was chosen to be Chairman. The district is bitterly divided over the closing of one of the high schools. One of the high schools has to be closed for financial reasons, but there is no agreement over which school to close. During his election to the school board, Mr. Grant had proposed a series of “Open Meetings” in which members of the community could voice their opinions. He hoped that dialogue would make the community realize the necessity of closing one high school. Also he hoped that through open discussion, the difficulty of the decision would be appreciated, and that the community would ultimately support the school board decision. The first Open Meeting was a disaster. Passionate speeches dominated the microphones and threatened violence. The meeting barely closed without fist-fights. Later in the week, school board members received threatening phone calls. Mr. Grant wonders if he ought to call off the next Open Meeting.

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

Cancer— (Story #4)

Mrs. Bennett is 62 years old, and in the last phases of colon cancer. She is in terrible pain and asks the doctor to give her more pain-killer medicine. The doctor has given her the maximum safe dose already and is reluctant to increase the dosage because it would probably hasten her death. In a clear and rational mental state, Mrs. Bennett says that she realizes this; but she wants to end her suffering even if it means ending her life. Should the doctor give her an increased dosage?

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

Demonstration — (Story #5)

Political and economic instability in a South American country prompted the President of the United States to send troops to “police” the area. Students at many campuses in the U.S.A. have protested that the United States is using its military might for economic advantage. There is widespread suspicion that big oil multinational companies are pressuring the President to safeguard a cheap oil supply even if it means loss of life. Students at one campus took to the streets, in demonstrations, tying up traffic and stopping regular business in the town. The president of the university demanded that the students stop their illegal demonstrations. Students then took over the college’s administration building, completely paralyzing the college. Are the students right to demonstrate in these ways?

[Now turn to the Answer Sheet, go to the 12 issues for this story, rate and rank them in terms of how important each issue seems to you.]

DIT-2 Answer Sheet

University of Minnesota
 Copyright, James Rest and Darcia Narvaez
 All Rights Reserved, 1998

IDENTIFICATION NUMBER

0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	
0	1	2	3	4	5	6	7	8	9	

Please read story #1 in the INSTRUCTIONS booklet.

Famine -- (Story #1)

What should Mustaq Singh do? Do you favor the action of taking the food? (Mark one.)

- ① Should take the food ② Can't decide ③ Should not take the food

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Is Mustaq Singh courageous enough to risk getting caught for stealing?
 ① ② ③ ④ ⑤ 2. Isn't it only natural for a loving father to care so much for his family that he would steal?
 ① ② ③ ④ ⑤ 3. Shouldn't the community's laws be upheld?
 ① ② ③ ④ ⑤ 4. Does Mustaq Singh know a good recipe for preparing soup from tree bark?
 ① ② ③ ④ ⑤ 5. Does the rich man have any legal right to store food when other people are starving?
 ① ② ③ ④ ⑤ 6. Is the motive of Mustaq Singh to steal for himself or to steal for his family?
 ① ② ③ ④ ⑤ 7. What values are going to be the basis for social cooperation?
 ① ② ③ ④ ⑤ 8. Is the epitome of eating reconcilable with the culpability of stealing?
 ① ② ③ ④ ⑤ 9. Does the rich man deserve to be robbed for being so greedy?
 ① ② ③ ④ ⑤ 10. Isn't private property an institution to enable the rich to exploit the poor?
 ① ② ③ ④ ⑤ 11. Would stealing bring about more total good for everybody concerned or wouldn't it?
 ① ② ③ ④ ⑤ 12. Are laws getting in the way of the most basic claim of any member of a society?

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

Reporter -- (Story #2)

Do you favor the action of reporting the story? (Mark one.)

- ① Should report the story ② Can't decide ③ Should not report the story

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Doesn't the public have a right to know all the facts about all the candidates for office?
 ① ② ③ ④ ⑤ 2. Would publishing the story help Reporter Dayton's reputation for investigative reporting?
 ① ② ③ ④ ⑤ 3. If Dayton doesn't publish the story wouldn't another reporter get the story anyway and get the credit for investigative reporting?
 ① ② ③ ④ ⑤ 4. Since voting is such a joke anyway, does it make any difference what reporter Dayton does?
 ① ② ③ ④ ⑤ 5. Hasn't Thompson shown in the past 20 years that he is a better person than his earlier days as a shop-lifter?
 ① ② ③ ④ ⑤ 6. What would best serve society?
 ① ② ③ ④ ⑤ 7. If the story is true, how can it be wrong to report it?
 ① ② ③ ④ ⑤ 8. How could reporter Dayton be so cruel and heartless as to report the damaging story about candidate Thompson?
 ① ② ③ ④ ⑤ 9. Does the right of "habeas corpus" apply in this case?
 ① ② ③ ④ ⑤ 10. Would the election process be more fair with or without reporting the story?
 ① ② ③ ④ ⑤ 11. Should reporter Dayton treat all candidates for office in the same way by reporting everything she learns about them, good and bad?
 ① ② ③ ④ ⑤ 12. Isn't it a reporter's duty to report all the news regardless of the circumstances?

Rank which issue is the most important (item number).

Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

PLEASE DO NOT WRITE IN THIS AREA

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	909209
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------

School Board -- (Story #3)

Do you favor calling off the next Open Meeting?

- ① Should call off the next open meeting ② Can't decide ③ Should have the next open meeting

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Is Mr. Grant required by law to have Open Meetings on major school board decisions?
- ① ② ③ ④ ⑤ 2. Would Mr. Grant be breaking his election campaign promises to the community by discontinuing the Open Meetings?
- ① ② ③ ④ ⑤ 3. Would the community be even angrier with Mr. Grant if he stopped the Open Meetings?
- ① ② ③ ④ ⑤ 4. Would the change in plans prevent scientific assessment?
- ① ② ③ ④ ⑤ 5. If the school board is threatened, does the chairman have the legal authority to protect the Board by making decisions in closed meetings?
- ① ② ③ ④ ⑤ 6. Would the community regard Mr. Grant as a coward if he stopped the open meetings?
- ① ② ③ ④ ⑤ 7. Does Mr. Grant have another procedure in mind for ensuring that divergent views are heard?
- ① ② ③ ④ ⑤ 8. Does Mr. Grant have the authority to expel troublemakers from the meetings or prevent them from making long speeches?
- ① ② ③ ④ ⑤ 9. Are some people deliberately undermining the school board process by playing some sort of power game?
- ① ② ③ ④ ⑤ 10. What effect would stopping the discussion have on the community's ability to handle controversial issues in the future?
- ① ② ③ ④ ⑤ 11. Is the trouble coming from only a few hotheads, and is the community in general really fair-minded and democratic?
- ① ② ③ ④ ⑤ 12. What is the likelihood that a good decision could be made without open discussion from the community?

Rank which issue is the most important (item number).

- Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
 Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

Cancer -- (Story #4)

Do you favor the action of giving more medicine?

- ① Should give Mrs. Bennett an increased dosage to make her die ② Can't decide ③ Should not give her an increased dosage

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Isn't the doctor obligated by the same laws as everybody else if giving an overdose would be the same as killing her?
- ① ② ③ ④ ⑤ 2. Wouldn't society be better off without so many laws about what doctors can and cannot do?
- ① ② ③ ④ ⑤ 3. If Mrs. Bennett dies, would the doctor be legally responsible for malpractice?
- ① ② ③ ④ ⑤ 4. Does the family of Mrs. Bennett agree that she should get more painkiller medicine?
- ① ② ③ ④ ⑤ 5. Is the painkiller medicine an active heliotropic drug?
- ① ② ③ ④ ⑤ 6. Does the state have the right to force continued existence on those who don't want to live?
- ① ② ③ ④ ⑤ 7. Is helping to end another's life ever a responsible act of cooperation?
- ① ② ③ ④ ⑤ 8. Would the doctor show more sympathy for Mrs. Bennett by giving the medicine or not?
- ① ② ③ ④ ⑤ 9. Wouldn't the doctor feel guilty from giving Mrs. Bennett so much drug that she died?
- ① ② ③ ④ ⑤ 10. Should only God decide when a person's life should end?
- ① ② ③ ④ ⑤ 11. Shouldn't society protect everyone against being killed?
- ① ② ③ ④ ⑤ 12. Where should society draw the line between protecting life and allowing someone to die if the person wants to?

Rank which issue is the most important (item number).

- Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
 Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Now please return to the Instructions booklet for the next story.

PLEASE DO NOT WRITE IN THIS AREA

Demonstration -- (Story #5)

Do you favor the action of demonstrating in this way?

- ① Should continue demonstrating in these ways ② Can't decide ③ Should not continue demonstrating in these ways

GREAT
MUCH
SOME
LITTLE
NO

Rate the following 12 issues in terms of importance (1-5)

- ① ② ③ ④ ⑤ 1. Do the students have any right to take over property that doesn't belong to them?
- ① ② ③ ④ ⑤ 2. Do the students realize that they might be arrested and fined, and even expelled from school?
- ① ② ③ ④ ⑤ 3. Are the students serious about their cause or are they doing it just for fun?
- ① ② ③ ④ ⑤ 4. If the university president is soft on students this time, will it lead to more disorder?
- ① ② ③ ④ ⑤ 5. Will the public blame all students for the actions of a few student demonstrators?
- ① ② ③ ④ ⑤ 6. Are the authorities to blame by giving in to the greed of the multinational oil companies?
- ① ② ③ ④ ⑤ 7. Why should a few people like Presidents and business leaders have more power than ordinary people?
- ① ② ③ ④ ⑤ 8. Does this student demonstration bring about more or less good in the long run to all people?
- ① ② ③ ④ ⑤ 9. Can the students justify their civil disobedience?
- ① ② ③ ④ ⑤ 10. Shouldn't the authorities be respected by students?
- ① ② ③ ④ ⑤ 11. Is taking over a building consistent with principles of justice?
- ① ② ③ ④ ⑤ 12. Isn't it everyone's duty to obey the law, whether one likes it or not?

Rank which issue is the most important (item number).

- Most important item ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
 Second most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

- Third most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫
 Fourth most important ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

Please provide the following information about yourself:

1. Age in years:

0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

2. Sex (mark one): Male Female

3. Level of Education (mark highest level of formal education attained, if you are currently working at that level [e.g., Freshman in college] or if you have completed that level [e.g., if you finished your Freshman year but have gone on no further].)

- Grade 1 to 6
- Grade 7, 8, 9
- Grade 10, 11, 12
- Vocational/technical school (without a bachelor's degree) (e.g., Auto mechanic, beauty school, real estate, secretary, 2-year nursing program).
- Junior college (e.g., 2-year college, community college, Associate Arts degree)
- Freshman in college in bachelor degree program.
- Sophomore in college in bachelor degree program.
- Junior in college in bachelor degree program.
- Senior in college in bachelor degree program.
- Professional degree (Practitioner degree beyond bachelor's degree) (e.g., M.D., M.B.A., Bachelor of Divinity, D.D.S. in Dentistry, J.D. in law, Masters of Arts in teaching, Masters of Education [in teaching], Doctor of Psychology, Nursing degree along with 4-year Bachelor's degree)
- Masters degree (in academic graduate school)
- Doctoral degree (in academic graduate school, e.g., Ph.D. or Ed.D.)
- Other Formal Education. (Please describe: _____)

4. In terms of your political views, how would you characterize yourself (mark one)?

- Very Liberal
- Somewhat Liberal
- Neither Liberal nor Conservative
- Somewhat Conservative
- Very Conservative

5. Are you a citizen of the U.S.A.?

- Yes No

6. Is English your primary language?

- Yes No

Thank You.

PLEASE DO NOT WRITE IN THIS AREA

Table 1

Type Indicators

Type Indicator	Frequency (N)	Percent
Type 1 Predominant in personal interests schema consolidated	9	6.5
Type 2 Predominant in personal interests schema, but transitional	35	25.2
Type 3 Predominant in maintaining norms schema, but transitional; personal interests secondary schema	37	26.6
Type 4 Predominant in maintaining norms schema, but consolidated	15	10.8
Type 5 Predominant in maintaining norms schema and transitional; postconventional secondary schema	13	9.4
Type 6 Predominant in postconventional schema; but transitional	16	11.5
Type 7 Predominant in postconventional schema and consolidated	4	2.9

Jealousy Differences among Men and Women

Kim Howard²

Jealousy is often a problem in romantic relationships. When severe enough, it can lead to arguments, abuse, and physical fights between couples. The hypothesis for the present study was there will be measurable differences between men and women in how they respond to hypothetical situations designed to induce jealousy. The Lindenwood Participant Pool was used to recruit 46 undergraduate students for the study. Participants completed the Hypothetical Reactions Survey based off of the Are You the Jealousy Type tests provided on the Psychology Today website, in order to find possible sex differences in jealousy scores. An independent t-test revealed significant sex differences in how participants rated the jealousy inducing scenarios. Women were more jealous than men according to the findings. The evidence gained in this study could be beneficial for preventing minor disputes as well as violence in romantic relationships. The findings could also be applied in couple's therapy in order to make partners aware of situations that cause jealousy, which may result in better communication between the partners and less arguments.

Jealousy can be found dwelling in every human, no matter how laid back some appear to be. It affects every individual in a variety of ways. Jealousy cannot be simply defined as a type of emotion or a particular thought; to better explain, it is an intricate framework of emotions, thoughts, and actions. People often feel hurt, anger, distress, and anxiety when experiencing jealousy (Carson & Cupach, 2000). These troubling feelings and thoughts are often the

² Kim Howard, Department of Psychology, Lindenwood University.

Correspondence concerning this article should be addressed to Kim Howard, Department of Psychology, Lindenwood University, St. Charles, MO 63361.

antecedent to domestic abuse and murder; this behavior is usually carried out by men (Buss, Larsen, Westen, & Semmelroth, 1992). However, men are not the only ones to blame. Women have confessed more than men that they have tried to cause a significant other to feel jealous (Pines & Aronson, 1983). This manipulative behavior will most likely lead to conflict between the couple. The potential problem of domestic abuse is the driving force behind searching for measurable differences between men and women in how they react when experiencing jealousy. It may lead to predictions and prevention of abuse, physical fights, and possibly even arguments. Past researchers have examined what types of infidelity produces jealous reactions in men and in women. It was found that men were distressed by sexual infidelity while women are most upset by emotional infidelity; this is thought to have developed from adaptive problems experienced in the beginnings of the human race (Buunk, Angleitner, Oubaid, & Buss, 1996). The early adaptive problem men were often plagued with was the possibility of his mate having offspring that were fathered by someone else. If this unfortunate event occurred, the man's efforts spent in courting the woman and mating would be lost; he also may have wasted years raising children that were not his (Buunk et al., 1996). Women feared infidelity for different reasons. The loss of protection, commitment, and a partner that will help raise the offspring were the major concerns for a woman if her mate fell in love with someone else (Buunk et al., 1996). These findings provide convincing evidence that sexual infidelity is more problematic for men and emotional infidelity is more damaging for women. However, a recent study produced evidence contradictory to this information. Russell and Harton's (2005) research among college students found that both men and women were more disturbed when thinking about sexual infidelity as opposed to emotional infidelity (2005). It is important to remember that emotional and sexual infidelities are both upsetting to most people and this may be why there is inconsistency among

findings. This information inspires more research on this topic in order to discover other attributes that might influence how men and women act when experiencing jealousy.

Stages in a relationship have been taken into consideration with how they affect the jealousy of an individual. Lower levels of jealousy are reported by women when they are in a steady, committed relationship and are satisfied with their partners while higher levels of jealousy are conveyed by women who are in unstable relationships and are unhappy with their partners (Khanchandani & Durham, 2009). This evidence also compares to a study that concluded the more in love a couple is, the less jealous feelings and behaviors were exhibited (Russell & Harton, 2005). These findings suggest that the less in love a couple is, the more jealousy they experience. It can also be hypothesized that jealousy continually declines the longer a couple has been together. However, other researchers have discovered a quite different finding according to the length of a relationship. The longer the couple has been together and the greater the intensity of the bond shared between the two partners often results in an increase of jealous behavior (Aune & Comstock, 1997). This surprising increase in jealousy can be explained by the partners feeling it is appropriate to express jealousy since they have a lot of time and effort invested in the relationship (Aune & Comstock, 1997). Another interesting piece of information is that men were much more bothered by sexual infidelity if they had been or are currently in a committed sexual relationship than men who had not experienced this kind of relationship (Buss et al., 1992). It would be beneficial to learn how jealous reactions differ according to how long people have been in a relationship or if they are not currently in one. Researchers have also been interested in what kinds of scenarios are the most likely to produce jealousy in an individual. The findings from one particular study provided rather interesting results. Participants reported feeling the most jealous when imagining a partner having a sexual

relationship with someone they were envious of, but were not as jealous if the affair was with someone they did not know personally (Pines & Aronson, 1983). This evidence suggests that people may become more protective over his or her significant other when in the presence of an envied person. It would be interesting to discover what exactly made this envied person so “special” in the eyes of the jealous individual. The findings could point to possible insecurities and low self-esteem in the jealous person. People who exhibit low self-confidence often have higher levels of jealousy and are more likely to believe there is a threat to the relationship (Melamed, 1991). It could even be hypothesized that these people are more envious of others. Alternative scenarios that triggered jealous reactions were other people knowing about an affair a significant other was having, if the significant other was paying more attention or flirting with another person, and if the significant other has close, single friends of the opposite sex (Pines & Aronson, 1983).

Predicting a person’s level of jealousy may also depend on what kind of personality characteristics him or her display. Low self-esteem, high neuroticism, anxiety, insecurities, and self criticism are some of the qualities found in highly jealous individuals (Melamed, 1991). Unfortunately, these individual’s jealousy can turn extreme. Morbid jealousy can be observed in people who are so convinced that their significant other is cheating that his or her thoughts on the topic are delusional (Harris, 2003). A person who has morbid jealousy can completely destroy the relationship they are in as well as possibly doing physical harm to the partner. The jealous person is fueled by anger, distress, and the constant, obsessive need to check in on his or her partner; this behavior can be described as a form of Obsessive Compulsive Disorder, which happens to be more common in men (Harris, 2003). This evidence is another way to connect domestic abuse committed by men to high levels of jealousy.

Aside from all the negative outcomes jealousy can evoke, relationships can actually benefit when communicating jealousy in mild forms. When partners use what is called integrative communication, they provide disclosure, reassurance, and create feelings of joy and desirability for each other (Yoshimura, 2004). Displays of affection, romantic feelings, and satisfaction are also increased when couple's effectively communicate jealousy to each other. A person may feel inspired to become a better romantic partner after jealous feelings have been appropriately communicated (Yoshimura, 2004). It is beneficial for people to learn how to manage their jealousy so they can improve and solidify their romantic relationships instead of destroying them.

The above research has inspired the purpose of this study, which is to determine whether there are measurable differences between men and women according to how they react when responding to scenarios that trigger jealous feelings. As mentioned above, sexual and emotional infidelities were the supposed causes for jealousy differences in men and women, but this is not always the case. It would be beneficial to discover if particular situations trigger jealousy in men but not women and vice versa. Relationship stages are also likely to play a part in how jealous a person may be. Verifying certain stages that contribute to jealous feelings and actions in relationships could help predict when jealousy is the strongest and most detrimental to the couple. The couple could also prepare themselves and learn how to communicate jealous feelings appropriately in order to avoid arguments or abuse.

The present study was designed to examine jealousy in men and women related to particular scenarios and relationship stages. Participants were recruited from the Lindenwood Participant Pool and were asked to rate their level of jealousy for a variety of jealousy inducing scenarios. A short demographic survey was also used to collect participant information about

sex, age, whether the participant had ever been romantically involved, the length of romantic relationship, and the frequency of arguments between the participant and his or her significant other that were triggered by jealousy.

Method

Participants

Forty-six undergraduate students were recruited from the Lindenwood Participant Pool (LPP) located on the campus of Lindenwood University. The LPP guidelines were followed in order to avoid coercing people to participate and to ensure the participants receive compensation for his or her time and effort spent in the study. Compensation consisted of bonus points for participants who were currently taking a general education class in anthropology, psychology, or sociology.

All of the participants were recruited from the LPP and were at least 18 years of age. No participants were excluded from the study. Seventeen men and twenty-nine women participated in the study. The ages of the participants ranged from 18 to 30 years of age with 19 being the average age. All but three of the participants reported being romantically involved with another person at least once in his or her life. Information about the length of past or current relationship was also obtained. Participants reported lengths ranging from one month to eight years with an average of one year. The majority of participants rated arguments in his or her relationships caused by jealousy to rarely occur.

Materials

Signup Sheet B was posted on the designated LPP board in order to recruit participants for the study. Signup Sheet B was chosen to allow participants to sign up for specific times the experimenter made available. Participants could also refer back to the signup sheet to remember

what time they signed up for and where the study will be located. Once the participants arrived at the study, they were asked to read over and sign two consent forms; one for the researcher and one for the participant to keep.

The Hypothetical Scenario Reactions survey (see Appendix A) was then administered for the participants to complete. This survey includes items such as you see your significant other flirting with another man or women and you discover your significant other talking/texting a man or women on the phone, how jealous would you feel? A few demographic questions were also included at the end of the survey. The Hypothetical Scenario Reactions survey was based off of the Are You the Jealous Type tests (PsychologyToday.com).

Five scenarios were taken from the fifty-two scenarios the test provided in order to shorten the length for participants. The scenarios were altered so that heterosexual and homosexual men and women could all use the same survey. For example, one of the original scenarios was worded as if you and your boyfriend/husband were to break up and he found someone almost immediately (within a month) how jealous would you be? This scenario was altered by changing boyfriend/husband to significant other and the word he to he/she in order to account for both homosexual and heterosexual men and women answering the question. To answer the original question, a person has to circle an option such as I would be extremely jealous, I would be fairly jealous, etc. To make answering easier for the participants, a five-point rating scale ranging from no jealousy to extreme jealousy was added to each scenario. Feedback letters were given to the participants in order to inform them of the purpose of the study and to gain the researcher's information in case the participants have any questions or concerns (see Appendix B). Lastly, the participants were given a receipt to turn into the LPP so they could obtain bonus points for taking the time to come to the study.

Procedure

Participants signed up for specific times offered on signup sheet B posted on the LPP board. Once a participant arrived to the designated room for the study, they were greeted by the experimenter and were handed two consent forms as well as a pen. The participant was instructed to read over and sign both forms, one copy was for the experimenter and the other copy for the participant's own records. The Hypothetical Reactions Survey (PsychologyToday.com) was then given to the participant and he or she was informed to sit wherever felt comfortable. Once the participant had completed what he or she wanted to of the survey it was handed back to the experimenter. The experimenter placed the survey in her data folder and gave the participant a feedback letter and a participant receipt. The experimenter explained that the feedback letter would inform him or her about the purpose of the survey and that it contained the experimenter's contact information if the participant had any questions. The experimenter told the participant to fill the top part of the receipt out and to turn it in to Y407 for his or her bonus points. The participant was then thanked. This whole process was repeated with every participant.

Results

The hypothesis of the present study stated that measurable differences will be found between men and women according to how they respond when exposed to hypothetical situations designed to induce jealousy. After the data were collected, an independent t-test with pooled variance was conducted in order to find any significant differences between men and women according to the jealousy scores. Pooled variance was used in the independent t-test due to an unequal number of men and women.

The results of the independent t-test revealed a significant sex difference, $t(44) = -2.427$, $p = .019$. Women's average scores of jealousy ($M = 17.38$, $SD = 2.85$) were significantly higher than men's average score of jealousy ($M = 14.94$, $SD = 3.94$).

Discussion

Measurable differences were found among men and women in how they respond when exposed to hypothetical situations designed to induce jealousy. The findings of women scoring higher in jealousy than men could have been attributed to the large amount of female participants in the study. Another speculation could be that men may not have found the scenarios provided in the survey to produce feelings of jealousy. This possibility could be related to the findings that suggested men were more distressed when thinking a significant other was being sexually unfaithful (Buunk et al., 1996). The jealousy inducing scenarios included in the survey were not sexual in content and instead focused on a significant other flirting with, talking with, smiling at, or dating another person. This may be why men scored lower on jealousy scores than women. One of the main limitations of the study was that mostly women signed up and participated. More accurate results could have been obtained if more men had participated. Another limitation was recruiting people from the LPP. The participants were only from Lindenwood University, which provided a threat to the external validity. Most of the participants were around the same age range, were not likely married, and had short-term relationship lengths of a few years. If I would have recruited elsewhere, I could have obtained a wide variety of men and women with differing ages, marital status, and relationship lengths. This would have strengthened the external validity of the study and the findings could have been generalized to more of the population. The present study could benefit from several adjustments or add-ons. Administering personality inventories to the participants along with the original survey could provide evidence on what

kinds of personalities are the most jealous. The personality inventory could also be a way to assess people's honesty on the jealousy surveys, since characteristics such as high neuroticism often results in high levels of jealousy as mentioned in the research Melamed (1991) conducted. More statistical analyses could have been conducted on the data to figure out what situations caused the most jealousy among the participants, if relationship length affected the level of jealousy, and if the level of jealousy affected the frequency of arguments.

The evidence gained from this study could be beneficial in finding ways to predict and possibly prevent arguments, abuse, and physical fights for couples. If people realize what kinds of situations make them feel jealous, they could work on decreasing the amounts of anger and distress felt when the situation arises. This could be accomplished by the jealous person remembering that they are important to their significant other and by their significant other reassuring the partner that they are invested in the relationship. Couple's therapy could help partners work on and overcome problems caused by jealousy. People suffering from jealousy could also benefit by learning how to communicate with the significant other about the unsettling feelings and thoughts they are having. Once proper communication is learned, the effects of jealousy in a relationship will provide more positive outcomes.

References

- Aune, K. S., & Comstock, J. (1997). Effect of relationship length on experience, expression, and perceived appropriateness of jealousy. *Journal of Social Psychology, 137*(1), 23-31
- Buss, M. B., Larsen, J. R., Westen, D., & Semmelroth, J. (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science, 3*, 251-255.

- Buunk, P. B., Angleitner, A., Oubaid, V., & Buss, M. D. (1996). Sex differences in jealousy in evolutionary and cultural perspective: Tests from the Netherlands, Germany, and the United States. *Psychological Science, 7*, 359-363.
- Carson, L. C., & Cupach, R. W. (2000). Fueling the flames of the green-eyed monster: The role of ruminative thought in reaction to romantic jealousy. *Western Journal of Communication, 64*, 308-328.
- Harris, C. R. (2003). A review of sex differences in sexual jealousy, including self-report data, psychophysiological responses, interpersonal violence, and morbid jealousy. *Personality and Social Psychology Review, 7*(2), 102-128.
- Khanchandani, L., & Durham, W. T. (2009). Jealousy during dating among female college students. *College Student Journal, 43*, 1272-1279.
- Melamed, T. (1991). Individual differences in romantic jealousy: The moderating effect of relationship characteristics. *European Journal of Social Psychology, 21*, 455-461.
- Pines, A., & Aronson, E. (1983). Antecedents, correlates, and consequences of sexual jealousy. *Journal of Personality, 51*, 108-134.
- Russell, E. B., & Harton, H. C. (2005). The "other" factors: Using individual and relationship characteristics to predict sexual and emotional jealousy. *Current Psychology, 24*(4), 242-257.
- Yoshimura, M. S. (2004). Emotional and behavioral responses to romantic jealousy expressions. *Communication Reports, 17*, 85-102.

Appendix A

Hypothetical Reactions Survey

(Based off of Are You the Jealous Type test from PsychologyToday.com)

Instructions: Imagine yourself being in the following scenarios and rate how jealous you would feel by circling a number on the scales below each question. (1 as being not jealous and 5 as being extremely jealous). When imagining the scenarios, use the person in the parenthesis that you feel is the most threatening to the relationship.

1. You see your significant other flirting with an attractive (man/ woman). How jealous would you feel? (1 as being not jealous and 5 as being extremely jealous)

1-----2-----3-----4-----5

2. You discover your significant other talking or texting a (man/woman) on the phone. How jealous would you feel? (1 as being not jealous and 5 as being extremely jealous)

1-----2-----3-----4-----5

3. A friend mentions they saw your significant other having lunch with an ex girlfriend/boyfriend. How jealous would you feel? (1 as being not jealous and 5 as being extremely jealous)

1-----2-----3-----4-----5

4. If you and your significant other were to break up and he/she found someone else almost immediately (within a month) how jealous would you feel? (1 as being not jealous and 5 as being extremely jealous)

1-----2-----3-----4-----5

5. An attractive (man/woman) smiles and says hello to your significant other. Your significant other smiles and says hello back. How jealous would this make you feel? (1 as being not jealous and 5 as being extremely jealous)

1-----2-----3-----4-----5

6. Are you MALE FEMALE?

7. Age (In Years)_____

8. Have you ever been romantically involved with someone (If yes, continue to the following questions)?

9. How long have you and your significant other been together?

10. How often do you and your significant other argue over scenarios similar to the above questions? (1 as being never and 5 as being always)

1-----2-----3-----4-----5

Appendix B

Feedback Letter

Thank you for participating in my study. The survey examining reactions to jealousy inducing scenarios and the demographic survey were used in order to determine whether there were any differences in reactions between men and women, which may be beneficial in preventing arguments, abuse, and physical fights, and be useful in couples counseling.

Please note that I am not interested in your individual results; rather, I am only interested in the results of a large group of participants, of which you are now a part of. No identifying information about you will be associated with any of the findings.

If you have any questions or concerns regarding any portion of this study, please do not hesitate to bring them up now or in the future. My contact information is found at the bottom of this letter. If you are interested in obtaining a summary of the findings of this study at a later date, please contact me and I will make it available to you at the completion of this project.

Thank you again for your valuable contribution to this study.

Sincerely,

Principal Investigator:

Kim Howard

Phone: 636-485-3831

Email: KH207@lionmail.lindenwood.edu

Supervisor:

Dr. Michiko Nohara-LeClair

Phone: 636-949-4371

Email: (mnohara-leclair@lindenwood.edu)

How Shallow Are We?

Amber Fetsch & Jake Jalinsky³

This experiment was performed to determine whether people make decisions about others based on their appearance and/of how interesting they are. To perform this study the researchers first recruited participants from the Lindenwood Participant Pool. For the experiment the researchers showed the participants a slide show with pictures of the models, read a question followed by reading the model's response to the question. The model's response was based on her personality, whether it is interesting or uninteresting. After the slide show was shown to the participants they were handed a survey consisting of two rating scales, one for attractiveness and one for interestingness, an ordered rank scale for whom they would most like to get to know, whether the participants knew any of the models and demographic questions such as age, gender, and class rank. The results showed that the interesting/attractive model was picked first more than any other model and the interesting/unattractive model was picked the second most. All four combinations of models how a positive correlation with unattractive/interesting ($r=.515$) model and uninteresting/unattractive ($r=.775$) model showing the strongest relationship.

First impressions are important. In a few seconds, a person can decide if he/she likes you or not only after seeing you for the first time. This split decision is made based largely on physical appearance. In one study, researchers found that men pick mates that are considered higher in physical attractiveness than themselves (Buunk, Dijkstra, Fetchenhauer, & Kenrich, 2002). Other researchers have found that attractive people who committed crimes not related to their attractiveness were given more lenient sentences than their unattractive counterparts; however, they were given a harsh sentence when the crime was related to their attractiveness

³ Correspondence concerning this paper should be addressed to Amber Fetsch ajf646@lionmail.lindenwood.edu, and Jake Jalinsky jj203@lionmail.lindenwood.edu.

(Sigall & Ostrove, 1975). In a sexual harassment study, a mock trial was made and the participants (the jury) were more favorable to the male defendants when they were attractive, finding most of them not guilty (Wuensch & Moore, 2004). One of the researchers asked his university class why they thought the attractive male defendants were found not guilty. Most of the class agreed that attractive people do not need to resort to sexual harassment because they are attractive and can get men or women easily (Wuensch & Moore, 2004).

Sometimes attractiveness can be based on the symmetry of the face. One study by Rubenstein, Kalakinas, and Langois (1999) manipulated some photographs to make them mathematically symmetrical, these faces were considered average. They asked undergraduate students about their preferences and they seemed to find the average faces attractive. They used the same pictures and showed them to infants and found that the infants looked longer at the average face than the other faces (Rubenstein et al, 1999).

Speed dating is prevalent among our culture. This is where you are assigned a number or spot and you have a short three to five minute date with someone. Because of the speed, you are able to meet a lot of people at once. Whether a person is picked for a second date or not can be determined by several things. Some of these things can include: person's attractiveness, whether a person discloses deep personal information or not, an individual's personal experience with dating, or how a date compares to the other dates (Finkel, Eastwick, & Matthews, 2007).

Another researcher held what they called a computer dance, where they paired dates at random (Walster & Abrahams, 1966). They found that the participants considered their desired partner to be more attractive than themselves and that the participants had expected to dance with someone of lower attractiveness than their desired partner. The participants set their goals lower in order to actually have a dance with someone. They also found that the more attractive people

judged their dates more harshly than the unattractive people (Walster & Abrahams, 1966). Dion, Berscheid, and Walster (1972) wanted to find out if people who were considered physically attractive were more socially desirable than people who are considered unattractive. They found in their experiment that people of higher physical attractiveness were more socially desirable to that of the opposite sex. The subjects in their study also believed that if their spouse were attractive then they would be more competent and have happier marriages (Dion et al., 1972).

The current experiment was designed to tell us if people make decisions about others based on their appearance and/or how interesting they seem. Knowledge will be obtained on what may contribute to a persons' decision making, whether it be interestingness of attractiveness, based upon the individual with whom they are coming into contact with. This could be beneficial when being interviewed, giving presentations and otherwise making a first impression. The researchers asked the question: Is a person's attractiveness going to be a preference for participants, despite whether they are interesting or not?

Participants were shown a slide show depicting four models, each with different level of attractiveness and different personalities. The study will help to determine the how much people rely on physical attractiveness as a factor when making decisions about interacting with people regardless of their personality. In order to depict different personalities the researchers read aloud a question to the participants followed by an answer that depicted different types of personalities, being that of interesting or uninteresting. In this study, the definition of attractiveness was based on cleanliness, whether the model is smiling, and whether her clothing fit right. The researchers hypothesized that the attractive models would be picked over the unattractive models regardless of how interesting they are.

Method

Participants

Four confederate models were recruited by the researchers. They were asked to pose as models for the study and were informed of the intent of the study. The models were all women between the ages of 18 and 27. They were not given any compensation for participating. The researchers recruited our participants using the Lindenwood Participant Pool (LPP). The Lindenwood Participant Pool offers extra credit to students enrolled in psychology 101 at Lindenwood University if they participate in an experiment. Our participants were 12 women and 14 men from Lindenwood University. The majority of our participants were ages 19 to 20 and were sophomores.

Materials

The researchers requested rooms through the LPP that had proper equipment in order to show our slides. Each room we used had about 25 desks in it and a projector to project our slides onto a screen. The researchers made a Microsoft Office PowerPoint slideshow using pictures of four confederate models. There were four different slides made that counterbalanced the order of the models presented using a Latin Square Design. The slides had a title slide that said "Who would you get to know" followed by a slide that had the question on it. Next, was a picture of model A, then model B, then model C, then model D. After all of the pictures were shown, the next question was shown on a slide. All of the slides with the questions on them were in title format and had a white background with black text in Calibri font size 40. The model's pictures covered the entire slide. Their hair was worn down and the attractive models were asked to wear make-up while the unattractive models were asked not to.

Their pictures were taken with a Cannon G9 in a hallway with a lot of lighting. They were all sitting up straight. The researchers asked all the models to smile comfortably. After the slideshow was over we left the creator view, which showed the six first slides on the left hand side of the screen so they could refer back to the models, up so the participants could refer back to the pictures. A script was made for the researcher to read a question that was asked to the models and then read each model's answers (see Appendix A. One of the questions asked was "If you won a million dollars tomorrow what would you do with it?" The answerers were as follows attractive/interesting, "I would throw a giant party for all of my friends."; attractive/uninteresting, "I would put it in the bank towards future opportunities."; unattractive/interesting, "I would travel the world, going to see places like Rome, France, and Barcelona."; unattractive/uninteresting, "I would pay off all my student loans and set some aside for when my kids are in college." As the answers were read the corresponding model's picture was shown. We gave each participant for the study two consent forms (see Appendix B), a survey asking questions about the video (see Appendix C), and a feedback letter (see Appendix D), and tips to look attractive found on www.bukisa.com for any participant who may have felt unattractive (see Appendix E).

Procedure

The researchers used a 2 x 2 design with the variables being the models' interestingness and attractiveness. The PowerPoint slides were shown to one to five participants at a time. Amber Fetsch read each question and answer. Each participant was given a survey after watching the PowerPoint. The researchers asked the participants to rate each model from one to four, one being their first choice and four being their last choice. The surveys answers were compared to see which model was preferred over the others. After the participants completed the

survey they were told to turn them in. Each participant was then debriefed and given a feedback letter, and tips for looking attractive.

Results

The researchers hypothesized that the attractive models would be picked over the unattractive models regardless of how interesting they are. The participants were asked to rate each model on their attractiveness and interestingness. The mean ratings for each of the attractive models were close to seven, while the mean ratings for each of the unattractive models were close to five. The mean ratings for each of the interesting models were also close to seven, while the mean ratings for the uninteresting models were, again, close to five. The researchers asked the participants to rate each model from one to four, one being their first choice and four being their last choice. The frequencies were counted and the model that was interesting and attractive, Model A, was picked first. The model that was picked second most was the interesting and unattractive model, Model C. The model that was picked third was Model A again. The model that was picked fourth the most was the uninteresting and unattractive model, Model D. The uninteresting and attractive model, Model B, was close to being picked second most (Model B: 8, Model C: 9).

An independent samples t-test was done to determine if there was a difference in ratings of the models between the men and women. What was found was that the men and women generally rated each model about the same, however, the women rated the models' attractiveness slightly harsher than the men and the men rated the models' interestingness slightly harsher than the women (see Table 1).

A Spearman's r correlation was done for each model for each of their ratings. We expected Models A and D to have a positive relationship between attractiveness and

interestingness and Models B and C to have a negative relationship. Models A and D did have a positive relationship, but so did Models B and C. Models C and D had the strongest relationship of attractiveness and interestingness (see Table 2). We compared their mean rating scores for attractiveness and interestingness.

Discussion

The researchers found that the attractive and interesting models was picked the most, however, the model that was picked second was the unattractive and interesting model. These results could have come from the type of answers the model was giving. For example, the interesting models were given two different personalities. The attractive interesting model had a social personality, often talking about hanging out with her friends or going to parties. Some participants could have seen this negatively if they do not like parties. The unattractive interesting model was given a more adventurous personality. She would talk about backpacking and traveling. The uninteresting and attractive model could have been picked more because our participants liked how adventurous she was. The unattractive interesting model was also the only model that had curly hair. Our participants could have liked curly hair.

The researchers also expected a negative correlation between the attractiveness and interestingness ratings for the attractive and uninteresting model and the unattractive and interesting model, but it was found that they both had a positive correlation. For the attractive and uninteresting model, this could be because people may consider attractive people to be automatically interesting, based on their looks and interestingness. For the unattractive and interesting model this positive correlation could be due to people believing that having an interesting or adventurous personality makes you more attractive.

Some of the other misconceptions could be because the participants did not remember which model said what answer to each of the questions. We had one participant who did not rate the models as we asked and only put their first choice. There was also a participant who rated all of the models attractiveness at seven. Some of the participants may not have taken the survey seriously and just circled numbers. There was also a participant who looked at the researcher who was reading the questions almost during the entire PowerPoint. This would make it hard for the participant to see what each model answered for each question.

The participants could have also put into consideration their own attractiveness. They could have been comparing themselves to the models in order to decide if they were attractive or not. For example, if a person who considers him/herself unattractive, the participants may have thought that all of the models were of higher attractiveness.

All of the models did not have the same color or length of hair. They also did not have the same eye color. The age range was almost ten years apart. These could all be factors that may have persuaded participant's preference.

In the future, the models need to have the same color hair, eyes, and be closer in age. On the surveys there should be a question that asks about the participants view on their own attractiveness. There could also be a question about what the person first notices on a person. The model's answers could also be shown typed under the model, but this could cause the participant to only look at the answer and not the model. It might be better if an actual video is made, where the models are speaking their answers. The basis was to pick out someone you would "get to know" and not a romantic relationship; however, the men may have rated the women this way. Women may also compare themselves to the models when rating them so this may be why the men and women's ratings were different.

References

- Buunk, B., Dijkstra, P., Fetchenhauer, D. & Kenrich, D. (2002). Age and gender differences in mate selection criteria for various involvement levels. *Personal Relationships, 9*, 271-278.
- Dion, K., Berscheid, E. & Walster, E. (1972). What is beautiful is good. *Journal of Personal and Social Psychology, 24* (5), 285-290.
- Finkel, E., Eastwick, P. & Matthews, J. (2007). Speed-dating as an invaluable tool for studying romantic attraction: A methodological primer. *Personal Relationships, 14*, 149-166.
- Rubenstein, A., Kalakinas, L. & Langois, J. (1999). Infant preferences for attractive faces: A cognitive explanation. *Developmental Psychology, 35* (3), 848-855.
- Sigall, H. & Ostrove, N. (1975). Beautiful but dangerous: Effects of offender attractiveness and nature of the crime on juridic judgment. *Journal of Personality and Social Psychology, 31* (5), 410-414.
- Walster, E., Aronson, V. & Abrahams, D. (1966). Importance of physical attractiveness in dating behavior. *Journal of Personal and Social Psychology, 4* (5), 508-516.
- Wuensch, K. & Moore, C.H. (2004). Effects of physical attractiveness on evaluations of male employee's allegations of sexual harassment by his female employer. *The Journal of Social Psychology, 144* (2), 207-217.

Table 1

Differences between Males and Females Ratings of Each Model's Attractiveness and Interestingness

	Sex of Participants	N	Mean	Std. Deviation	Std. Error Mean
Attractive rating of model A	male	14	6.36	1.499	.401
	female	12	7.00	1.206	.348
Attractive rating of model B	male	14	6.93	2.018	.539
	female	12	7.58	.996	.288
Attractive rating of model C	male	14	5.64	1.393	.372
	female	12	4.83	1.946	.562
Attractive rating of model D	male	14	5.07	2.235	.597
	female	12	5.17	1.642	.474
Interesting rating of model A	male	14	6.86	2.033	.543
	female	12	7.75	1.357	.392
Interesting rating of model B	male	14	5.64	2.405	.643
	female	12	5.50	2.714	.783
Interesting rating of model C	male	14	7.43	1.555	.416
	female	12	6.92	2.021	.583
Interesting rating of model D	male	14	5.29	2.054	.549
	female	12	4.67	2.270	.655

Note. Model A: attractive, interesting; Model B: attractive, uninteresting; Model C: unattractive, interesting; Model D: unattractive, uninteresting.

Table 2

			Attractive Rating of Model	Interesting Rating of Model
Spearman's rho	Attractiveness Rating of Model A	Correlation Coefficient	1.000	.373
		Sig. (2-tailed)	.	.061
		N	26	26
	Interestingness Rating of Model A	Correlation Coefficient	.373	1.000
		Sig. (2-tailed)	.061	.
		N	26	26
Spearman's rho	Attractiveness Rating of Model B	Correlation Coefficient	1.000	.342
		Sig. (2-tailed)	.	.087
		N	26	26
	Interestingness Rating of Model B	Correlation Coefficient	.342	1.000
		Sig. (2-tailed)	.087	.
		N	26	26
Spearman's rho	Attractiveness Rating of Model C	Correlation Coefficient	1.000	.515**
		Sig. (2-tailed)	.	.007
		N	26	26
	Interestingness Rating of Model C	Correlation Coefficient	.515**	1.000
		Sig. (2-tailed)	.007	.
		N	26	26
Spearman's rho	Attractiveness Rating of Model D	Correlation Coefficient	1.000	.775**
		Sig. (2-tailed)	.	.000
		N	26	26
	Interestingness Rating of Model D	Correlation Coefficient	.775**	1.000
		Sig. (2-tailed)	.000	.
		N	26	26

Note. **. Correlation is significant at the 0.01 level (2-tailed). Model A: attractive, interesting; Model B: attractive, uninteresting; Model C: unattractive, interesting; Model C: unattractive, uninteresting

Appendix A

Informed Consent Form

I, _____ (print name), understand that I will be taking part in a research project that requires me to a) watch a short video of four females answering questions and b) complete a short questionnaire asking about my preference of whom I would like to get to know. I understand that I should be able to complete this project within 15 minutes. I am aware that my participation in this study is strictly voluntary and that I may choose to withdraw from the study at any time without any penalty or prejudice. I should not incur any penalty or prejudice because I cannot complete the study. I understand that the information obtained from my responses will be analyzed only as part of aggregate data and that all identifying information will be absent from the data in order to ensure anonymity. I am also aware that my responses will be kept confidential and that data obtained from this study will only be available for research and educational purposes. I understand that any questions I may have regarding this study shall be answered by the researcher(s) involved to my satisfaction. Finally, I verify that I am at least 18 years of age and am legally able to give consent or that I am under the age of 18 but have on file with the LPP office, a completed parental consent form that allows me to give consent as a minor.

Date: _____

(Signature of participant)

Date: _____

(Signature of researcher obtaining consent)

Student Researchers' Names and Numbers:

Amber Fetsch 314-853-2802
Jake Jalinsky 618-789-0141

Supervisor : Dr. Michiko Nohara-LeClair
Course Instructor
(636)-949-4371
mnohara-leclair@lindenwood.edu

Appendix B

Survey **Video # _____**

- 1) Rank the models based on who you would want to get to know

Model A _____

Model B _____

Model C _____

Model D _____

- 2) Why do you prefer the model you filled in for the first position?

- 3) How attractive do you find the models on a scale of 1 to 10, 10 being very attractive and 1 being not attractive?

a. Model A	1	2	3	4	5	6	7	8	9	10
b. Model B	1	2	3	4	5	6	7	8	9	10
c. Model C	1	2	3	4	5	6	7	8	9	10
d. Model D	1	2	3	4	5	6	7	8	9	10

- 4) How interesting do you find the models on a scale of 1 to 10, 10 being very interesting and 1 being not interesting?

a. Model A	1	2	3	4	5	6	7	8	9	10
b. Model B	1	2	3	4	5	6	7	8	9	10
c. Model C	1	2	3	4	5	6	7	8	9	10
d. Model D	1	2	3	4	5	6	7	8	9	10

- 5) Do you know any of the models shown?

a. Yes
b. no

6) Are you MALE FEMALE?

7) How old are you?
_____years

8) What year are you at Lindenwood?
 Freshman Sophomore Junior Senior Unknown

Appendix C

Script

1. What would you consider to be an enjoyable night?
 - a. Attractive/ interesting
 - i. Getting dressed up and going out on the town.
 - b. Attractive/ uninteresting
 - i. Sitting around my house and maybe reading a book.
 - c. Unattractive/ interesting
 - i. Going out somewhere fun, like the city museum or a interesting restaurant
 - d. Unattractive/ uninteresting
 - i. nothing
2. If you won a million dollars tomorrow what would you do with it?
 - a. Attractive/ interesting
 - i. I would throw a giant party for all of my friends.
 - b. Attractive/ uninteresting
 - i. I would put it in the bank towards future opportunities.
 - c. Unattractive/ interesting
 - i. I would travel the world, going to see places like Rome, France and Barcelona

- d. Unattractive/ uninteresting
 - i. I would pay off all my student loans and set some aside for when my kids are in college.
3. If a close friend had to describe you in one word what would it be?
- a. Attractive/ interesting
 - i. Vibrant
 - b. Attractive/ uninteresting
 - i. Beautiful
 - c. Unattractive/ interesting
 - i. Energetic
 - d. Unattractive/ uninteresting
 - i. Shy
4. What would you consider your most interesting feature to be?
- a. Attractive/ interesting
 - i. My adventurous style
 - b. Attractive/ uninteresting
 - i. My hair
 - c. Unattractive/ interesting
 - i. My artistic nature
 - d. Unattractive/ uninteresting
 - i. How organized I am
5. Which of the seven dwarfs would you consider yourself most like?
- a. Attractive/ interesting
 - i. Happy, I rarely find anything to be sad or upset about
 - b. Attractive/ uninteresting

- i. Dopey, he's just soooooo cute
 - c. Unattractive/ interesting
 - i. Doc, I like to be in charge of things. Whenever my friends and I plan a backpacking trip, I make all of the plans.
 - d. Unattractive/ uninteresting
 - i. Sleepy
- 6. If your boss gave you a surprise day off what would you do?
 - a. Attractive/interesting
 - i. Go out for a picnic in the park, maybe even to the zoo.
 - b. Attractive/ uninteresting
 - i. Go home and start some laundry and clean the house
 - c. Unattractive/ interesting
 - i. Go on a long scenic bike ride.
 - d. Unattractive/ Uninteresting
 - i. Do some homework and watch television.

Appendix D

Feedback Letter

Thank you for participating in our study. The questionnaire was used in order to determine people's beliefs about which girl you would rather get to know.

Please note that we are not interested in your individual results; rather, we are only interested in the results of a large group of consumers, of which you are now a part of. No identifying information about you will be associated with any of the findings.

If you have any questions or concerns regarding any portion of this study, please do not hesitate to bring them up now or in the future. Our contact information is found at the bottom of this letter. If you are interested in obtaining a summary of the findings of this study at a later date, please contact us and we will make it available to you at the completion of this project.

Thank you again for your valuable contribution to this study.

Sincerely,

Principal Investigators:

Amber Fetsch 314-853-2802

Jake Jalinsky 618-789-0141

Supervisor:

Dr. Michiko Nohara-LeClair

636-949-4371

(mnohara-leclair@lindenwood.edu)

Appendix E

10 Useful Tips to Looking Attractive

The **secret** of looking young and attractive has been a sought after issue since centuries. Many experiments have been conducted to find out the ways for slowing down the aging process. Some of the techniques have been implemented for this purpose but the most important thing that we can do to preserve our youth is to implement a healthy lifestyle and eating habits.

We may not be able to go against nature and stop the aging process but we can still look younger if we work hard in slowing down the natural process of aging. Given below are 10 useful tips that you can implement to look much younger than your present age.

Food: Our body can look slim, fit and much younger if we eat nutritious and healthy food everyday. Try to emphasize more on consuming fresh fruits, green leafy vegetables, nuts, Soya beans and supplements. Avoid the consumption of tea, coffee and other beverages which contain caffeine.

Sleep: Taking enough sleep at night for at least seven hours will make your **skin** healthier. Having a good sleep is also important because growth hormone is working during that time. Old cells of the body including the skin cells get renewed during sleep. A sound sleep will make our skin look much more fresh and younger.

Detox: For getting rid of the harmful toxins present in our body it is necessary to start detoxification. This is handled by the body's own natural defense mechanism. The easy ways to detoxify our body is by consuming fruits and vegetables or by observing a fast.

Relaxation: Our face will look much younger if we try to relax as much as possible. Stress and tensions appear on our face. We can look much more healthy and energetic if we try to manage our stress and anxiety effectively.

Exercise: A daily exercise schedule helps to make you feel more happy, confident and healthy. Exercise also builds up the muscles and increases bone density which can make our body look 15-20 years younger. All types of exercises such as walking, swimming and aerobics are helpful for this purpose.

A positive attitude: It is very important to have an optimistic attitude in life as it can save you from much of the stress and worries. A negative mindset tends to bring failure and makes you look older and unattractive. Meditation is one of the ways to invoke positive thoughts.

Social Life: Along with our professional life, it is also necessary to make our social life happy and peaceful. One of the ways to achieve this is by increasing communication with our friends, family, neighbors, colleagues, and others which can bring in peace and happiness.

Medical Check-up: Our body also requires **personal care** and attention just like a vehicle to maintain a good working condition. Doing routine medical checkups during our free time is important to recognize if there is anything wrong going inside our body.

Active Life: It is equally essential to remain active in our day to day life which in turn can have a positive impact on our health and increase our memory even if we are of an elder age.

Performance: Performance pays a lot and it is important to start looking at our performance. Is our body weight ideal for us? If not, try to fix that to the best ideal weight. Also look to the skin, hair, nail and teeth. Those are important as they will show our age. Looking and feeling good and healthy will go a long way in increasing our **performance**.

Read more: http://www.bukisa.com/articles/155045_10-useful-tips-to-looking-young-and-attractive#ixzz0zQwsaHWT

Shop Till You Drop

Lydia J. Langley⁴

Social influences on human behavior can impact individuals' choices, leading to decisions that would not otherwise be made. Making purchases is a personal decision, but at times this can also involve others in the process prior to, during, and after the purchase. The purpose of this study was to explore ideas regarding individuals' purchasing choices, their opinions of their own shopping behavior and that of others. Research questions for this study included: what do men and women think about their personal shopping behaviors and choices, do participants believe that others influence their shopping choices, and do participants attempt to influence the shopping behaviors of others. A survey was used to gather information from participants concerning their opinions of purchasing and shopping behavior and the data was analyzed and a description was developed including the comments of those who participated. The results showed that participants believed that their shopping behavior differs greatly according to different circumstances and that what might be applicable at one point in time might not be at another. Potential benefits from this study include ideas for future, more expansive research regarding purchasing behaviors.

Perception of the influence of others on human behavior has been illustrated as being of great importance to the choices made by individuals, supported by research in the social sciences. The purpose of this study is to explore how individuals perceive themselves as being influenced or not influenced by others when making purchasing decisions. This study is important regarding the research of social influences on human behavior with respect to learning the ways that individuals believe they change or do not change their behavior according to the

⁴ Correspondence concerning this paper should be addressed to Lydia J. Langley, 209 S. Kingshighway, St. Charles, MO 63301, (816) 223-3241, ll010@lionmail.lindenwood.edu.

ideas, input, and influence of others. Conspicuous consumption, groupthink, and social influences on human behavior as well as information regarding debt as a social problem and the social dynamics of shopping behavior are topics which provide a background for the concept of individuals being influenced by others in their purchasing choices.

While individuals often prefer to believe that the choices they make, including purchasing decisions, are thoroughly their own decisions, this often is not truly the case (Cowen, 2009). Individuals do not live in a world by themselves and one of the typical elements of human behavior is for one to compare his or her life to that of others. Importance should be placed on the choices, behaviors, and purchases of others, even if one is not consciously aware of that behavior (Cowen, 2009). Americans have made purchasing choices based upon what others were doing and have ended up in great debt across the nation in relation to the economic recession of 2009 (Cowen, 2009). This economic downturn has resulted in a change in consumer behavior, as individuals now consider it unnecessary and even unpopular to make extravagant purchases simply because someone else has influenced them to do so (Cowen, 2009).

Groupthink, the process by which individuals make decisions based upon the notion that others are exhibiting the same behavior, is a vital concept in the choices made by young adults to engage or not engage in risky behavior (Hickey & Fitzclarence, 2004). The socialization process is highly important in the decision-making process of individuals and many base their choices upon what everyone else in a group believes and illustrates as normal and acceptable (Hickey & Fitzclarence, 2004). While the risks involved in that study of socialization are not the same as those posed by debt and poverty, the notion of individuals being led to engage in harmful behavior based on groupthink and social influence are the same.

Social influence upon the consumer behavior of individuals is important in some situations even when the “social presence” does not directly interact with the individual (Argo & Dahl, 2005). Research of retail purchasing locations and social presence indicate that behavior is influenced in some, but not all, circumstances (Argo & Dahl, 2005).

Debt as a social problem in the United States is highly prevalent but even though individuals have personal debt they sometimes continue to make purchases which without the availability of credit cards they would not be able to pay for. One of the key methods to assist individuals who have accumulated debt is to discontinue making purchases (Quinn & Ehrenfeld, 2001). Reducing the number of purchases made under social influences would also be beneficial to those who are in debt (Quinn & Ehrenfeld, 2001).

A similar inquiry to this study, is Luo’s (2005) research of the social influences upon the impulsive buying decisions of individuals, in which the author suggests that the presence of others while someone is shopping can impact the impulsive purchasing choices he or she makes. Of significant importance is the idea presented that the influence of others on individual impulsive purchasing behavior has to do with the closeness and importance of the relationship between the individuals in that particular shopping group (Luo, 2005). A difference also exists in how individuals make impulsive purchasing decisions influenced by others and purchasing decisions influenced by marketing promotions since different priorities are important to different individuals (Luo, 2005).

This study explores such research ideas as: what do men and women think about their personal shopping behaviors and choices, do participants believe that others influence their shopping choices, and do participants attempt to influence the shopping behaviors of others.

Surveys were used to compile information from participants and descriptive methodology was utilized in order to examine the comments provided.

Method

Participants

Participants for this study were recruited from the Lindenwood Participant Pool (LPP), which includes undergraduate college students from the following entry level social sciences courses taught at Lindenwood University: ANT 112, PSY 100, PSY 101, SOC 102, and SOC 214, as well as some athletic training courses. Twenty individuals participated in this study, including 15 females and 5 males, and almost half of the participants were in their sophomore year in college. The age range of participants included the youngest individual at age 18 and the oldest at age 26. The 20 participants were male and female, over the age of 18, and all received extra credit in their respective courses through the LPP for participation in this study.

Materials

Materials for this study included: a description of the study (see Appendix A) for LPP recruitment and sign-up sheet purposes that was posted on a bulletin board in order to recruit participants through the LPP. Informed consent forms (see Appendix B) were used that gave information regarding their involvement in the study and their ability to quit the study at any time without consequence. Participant receipts were used to provide participants with proof of their participation in the study in order to get the extra credit for their class through the LPP office. Surveys (see Appendix C) regarding participants' opinions of their shopping behaviors were developed by the researcher, including ten questions and an extra page giving participants the opportunity to provide more information regarding the subject matter if they desired. Questions on the survey were written by the researcher, including: Question 4 "How often do

you make purchases (paying money for any item) that you had not planned for?”, Question 5 “How often do you feel pressured by another person to purchase something?”, Question 6 “Do you feel that it is important to purchase items that will demonstrate that they were expensive (such as expensive brand names printed on products)?”, Question 7 “Do you ever attempt to influence others to make purchases?”, Question 8 “Do you prefer to make purchases quickly or slowly?”, Question 9 “Are you generally satisfied or unsatisfied with the purchases you make?”, and question 10, had 3 parts in answer to the question, “Do you prefer (please circle answers)” including 10A “Shopping at a mall,” 10B “Shopping at a grocery store,” and 10C “Shopping at a discount store (Walmart, etc.).” Follow-up letters (see Appendix D) were used including the researcher’s contact information to be given to participants. The study took place in classrooms, a library group study room, and in a small psychology lab room as well, and all participants were provided with a desk or a seat at a large table and, if necessary, a pen to complete the paperwork and survey.

Procedure

Using sign-up sheet B allowed some individuals to be tested individually and some to be tested in small groups of 2 or 3. Participants in this study were greeted by the researcher and given an informed consent form to complete. The researcher provided participants with a participant receipt for the study and informed them of the location to redeem the receipt for extra credit in their courses.

Participants were verbally informed that they could choose to quit the study at any time without consequence, that the information obtained from the participants would remain completely anonymous since the resulting report would contain information about the group of participants as a whole rather than individual responses, and that they should feel free to ask the

researcher any question at any time. Participants were asked to fill out a survey containing demographic questions as well as questions regarding opinions of how others influence or do not influence their shopping habits. Participants were provided with a verbal debriefing with additional information about the purpose of the study. A follow-up letter thanking participants for taking part in the study was distributed, including the contact information of the researcher so that participants would be able to inquire about the results of the study at a later date if desired.

Results

Because the vast majority of participants were women, the research question “what do men and women think about their personal shopping behaviors and choices,” cannot be analyzed but the choice of women to participate in the study may indicate that perhaps they prefer to shop more than men which led them to choose to participate in the study. The research question, “do participants believe that others influence their shopping choices,” appears to have been answered by the study, with most participants indicating that they do not believe others influence their shopping choices. Additionally, the research question, “do participants attempt to influence the shopping behaviors of others,” might also have been answered with a number of participants commenting that they do attempt to influence the shopping behavior of others.

While the majority of participants indicated for Questions 10A, 10B, and 10C, that they prefer shopping with others rather than shopping alone at a mall, grocery store, or discount store (Walmart, etc.), comments show that people make different choices depending upon what they are shopping for. Responding to Question 5, “How often do you feel pressured by another person to purchase something,” most participants answered “rarely” or “sometimes,” and most believed it was “not important,” “slightly important,” or “somewhat important,” to “purchase items that

will demonstrate that they were expensive (such as expensive brand names printed on products)” regarding Question 6.

It appears that the cost of the item being purchased plays a significant role in whether an individual chooses to buy it or not, and some items are purchased (such as food) more than others because they are considered as more of a necessity than a luxury. Also, in response to Question 4, “How often do you make purchases (paying money for any item) that you had not planned for?” most participants indicated that they “sometimes” or “often” did so. The majority of participants answered that they were “satisfied” or “moderately satisfied” with their purchases in response to Question 9, “Are you generally satisfied or unsatisfied with the purchases you make?” and most answered that they either preferred to make purchases “moderately quick” or “moderately slow.”

Discussion

One of the most interesting aspects of the information collected from this survey was in the form of comments that some individuals provided on their surveys in addition to the standard set of questions. One participant indicated that for Question 8 (“Do you prefer to make purchases quickly or slowly?”), that “it depends on how expensive the item is,” for 10 A-C (Do you prefer shopping alone or with others at a mall, grocery store, or discount store) that “it depends on what I’m buying,” whether or not the individual would prefer shopping alone or with others, and that both answers would be considered appropriate. This individual also commented, “Any purchase I make depends on the price and quantity (quantity) as well as quality.” Another participant indicated, “I sometimes make fast shopping decisions but I often regret it afterwards so now a lot of research goes into what I buy unless it’s clothes.” A comment left by another participant included, “I like shopping, but if I can afford it, and when I can’t then I don’t shop at

all. Most of my money is spent on food.” Also, one participant commented “Concerning Question 8,” (“Do you prefer to make purchases quickly or slowly?”) “I often buy ‘big’ things that cost more money slower than if it’s small things like just a t-shirt or something like that. So it’s a bit of both.” These comments indicate that many individuals tend to make different choices in making purchases and alter their shopping behaviors according to different situations.

Question 7 asked participants, “Do you ever attempt to influence others to make purchases?” The data showed that 8 of the participants believe that they attempt to influence others to make purchases but 16 of the participants answered that either rarely or sometimes they feel pressured by another person to purchase something. A number of possibilities exist, such as that perhaps people attempt to influence others to make purchases but those efforts are not successful. Another possibility is that individuals are influenced by others to make purchases but often do not even recognize that they are being pressured by others to do so. This also suggests that individuals realize that they attempt to change the decisions of others and influence them to make purchasing choices, but that they do not believe that the same process happens to them.

Further research regarding this topic could include such questions as, are people influenced to make purchases without them being able to recognize that this is occurring? Why do individuals purposely attempt to influence the purchasing choices made by others? How expensive must an item be in order for an individual to feel that more consideration must be done before purchasing it, as opposed to spontaneous purchases that are made without much concern for the cost? Further research would also be helpful regarding what it is that participants prefer to shop for the most and if they are more likely to be influenced by others to buy something if it is a product they are already more likely to buy because of personal preference rather than a product that is of neutral interest to begin with. The findings of this study indicate that individuals have

varying opinions regarding their shopping choices and behavior according to differing circumstances, and pursuing more qualitative research in the future, such as interviews and participant observation would explore these ideas in more descriptive detail.

This could be accomplished by interviewing participants with open-ended questions, such as asking them to tell the researcher about shopping in general or about any experiences they have had while shopping that they consider interesting or important. Participant observation could be accomplished by following participants as they shop, and asking questions concerning the purchasing choices they make throughout the experience. Additional observational research could also be accomplished by observing shopping taking place in a store, or observing individuals in a shopping mall, and additional work could be done when analyzing the data by checking sales records of stores that were observed (with permission of the respective stores to complete such research). Conducting further research using qualitative methodology would be helpful in gaining a better understanding of what impacts individuals' purchasing choices and shopping behavior.

References

- Argo, J., & Dahl, D. (2005). The influence of a mere social presence in a retail context. *Journal of Consumer Research*, 32(2), 207-212.
- Cowen, T. (2009). The life cycle of conspicuous consumption. *Money*, 38(4).
- Hickey, C., & Fitzclarence, L. (2004). Regimes of risk: The need for a pedagogy for peer groups. *Asia-Pacific Journal of Teacher Education*, 32(1), 49-63.
- Luo, X. (2005). How does shopping with others influence impulsive purchasing? *Journal of Consumer Psychology*, 15(4), 288-294.
- Quinn, J. B., & Ehrenfeld, T. (2001). Don't lose it: Seven tips. *Newsweek*, 138(9).

Percentages Table

Question 4	Never	Rarely	Sometimes	Often	Very Often
	0%	25%	40%	30%	5%
Question 5	Never	Rarely	Sometimes	Often	Very Often
	15%	40%	40%	5%	0%
Question 6	Not Important	Slightly Important	Somewhat Important	Important	Very Important
	35%	25%	25%	10%	5%
Question 7	Never	Rarely	Sometimes	Often	Very Often
	15%	30%	40%	15%	0%
Question 8	Very Quick	Moderately Quick	Neither	Moderately Slow	Very Slow
	5%	45%	10%	30%	5%
Question 9	Unsatisfied	Moderately Unsatisfied	Neutral	Moderately Satisfied	Satisfied
	0%	0%	15%	25%	60%
Question 10A	Alone	With Others			
	25%	70%			
Question 10B	Alone	With Others			
	40%	55%			
Question 10C	Alone	With Others			
	35%	55%			

Appendix A

EXPERIMENT DESCRIPTION

Project #: 11-27

Experimenter's name(s): Lydia Langley

Experimenter's contact information: (816) 223-3241 ll010@lionmail.lindenwood.edu

Approximate amount of time experiment will take: no more than 10 minutes

Type of experiment (survey, interactive, etc.): survey

Experiment name: Shop Till You Drop

Description of the experiment: Participants will be asked to complete a survey regarding their opinions of their personal shopping habits and choices.

Appendix B

“Shop Till You Drop” Informed Consent Form

I, _____ (print name), understand that I will be participating in a research study that will ask me to complete one survey regarding my purchasing decision and other related information. I understand that I should be able to complete the study within 15 minutes. I am aware that I can withdraw from the study at any time without consequence and will be given a participant receipt for extra credit in my course whether I complete the study or not. I understand that the information I provide will not be able to be matched with my personal identifying information. I understand that the results of the study will be compiled in a report that will explain the results of the group of participants in this study as a whole, not the individual results of any participant in the study. I realize that the data will be kept confidential and unidentifiable by the researcher, and is to be used for educational purposes. I understand that any questions I have regarding the project will be answered by the researcher during the study and that the researcher can be contacted to answer any questions regarding the study or results of the study following the conclusion of the project. I also verify that I am at least 18 years of age and am legally able to give consent or that I am under the age of 18 but have on file with the LPP office, a completed parental consent form that allows me to give consent as a minor.

Date: _____

(Signature of participant)

Date: _____

(Signature of researcher obtaining consent)

Principal Researcher: Lydia J. Langley

(816) 223-3241

ll010@lionmail.lindenwood.edu

Supervisor: Dr. Michiko Nohara-LeClair

Course Instructor

(636) 949-4371

mnohara-leclair@lindenwood.edu

Appendix C

Shop Till You Drop Survey

Please circle the letter next to the answers that most closely fit your opinion or circle the best answer for you, and please fill in blanks. Additional paper is provided at the end of the survey for any additional comments you might wish to provide regarding this questionnaire or the topics it concerns.

1. Are you:

- a. Male
- b. Female
- c. Do not wish to specify

2. What is your current age? _____

3. What year are you in college?

- a. Freshman
- b. Sophomore
- c. Junior
- d. Senior
- e. "Super Senior" (5+ years)
- f. Other (please specify) _____

4. How often do you make purchases (paying money for any item) that you had not planned for?

Never-----Rarely-----Sometimes-----Often-----Very Often

5. How often do you feel pressured by another person to purchase something?

Never -----Rarely-----Sometimes-----Often-----Very Often

6. Do you feel that it is important to purchase items that will demonstrate that they were expensive (such as expensive brand names printed on products)?

Not Important-----Slightly Important-----Somewhat Important-----Important-----Very Important

7. Do you ever attempt to influence others to make purchases?

Never -----Rarely-----Sometimes-----Often-----Very Often

8. Do you prefer to make purchases quickly or slowly?

Very Quick-----Moderately Quick-----Neither-----Moderately Slow-----Very Slow

9. Are you generally satisfied or unsatisfied with the purchases you make?

Unsatisfied-----Moderately Unsatisfied-----Neutral-----Moderately Satisfied-----Satisfied

10. Do you prefer (please circle answers):

- Shopping at a mall: alone with others

- Shopping at a grocery store: alone with others

- Shopping at a discount store (Walmart, etc.) alone with others

Please Provide Any Additional Comments Regarding This Survey, Shopping Behaviors, or Any Other Information You Would Like to Provide Here.

THANK YOU!

Appendix D

THANK YOU FOR PARTICIPATING IN “SHOP TILL YOU DROP”!!!

Thank you for participating in this study. The study is exploring the opinions of individuals regarding their personal shopping behaviors as well as their perceptions of social influences on their shopping behavior and their perceived influence over the shopping behaviors of others. If you would like information regarding the outcome of this study, or have any questions, please feel free to contact the researcher at any time. Thank you again for your time and input!

Lydia Langley – Principal Researcher

(816) 223-3241

ll010@lionmail.lindenwood.edu

Dr. Michiko Nohara-LeClair – Supervisor and Course Instructor

(636) 949-4371

mnohara-leclair@lindenwood.edu

The Relationship between Self-Esteem and Aggression

Ashley Silverberg⁵

The purpose of this study was to find whether there was a correlation between self-esteem and aggression. There has been a lot of controversy over this issue in the past. To get a better understanding of this debate, the current study required a within-participant design to evaluate the scores of both self-esteem and aggression. Each participant was recruited ethically from the Lindenwood Participant Pool and given two surveys to complete. The surveys were counterbalanced to make sure that the results would not be bias on order effects. After the data was collected, the participant's scores were compared to determine if there was a positive or negative correlation between the two. The results showed that there was in fact a negative correlation between self-esteem and aggression. Results also showed that there was a negative correlation between aggression scores and personal ratings of control, yet, a positive correlation between self-esteem scores and personal ratings of happiness. This means that those who scored lower on the Aggression Scale ranked themselves as more able to control themselves. Also, those who scored higher on the Self-Esteem Survey ranked themselves as happier with their lives.

There has been much controversy over whether or not self-esteem is related to aggression. Rosenberg's theory was that individuals who have low self-esteem are less attached to society and therefore will decrease the traditional values of social norms causing them to act out aggressively (Rosenberg, 1965). Tracy and Robins agree with this statement and believe that low self-esteem is linked to aggression. They state that individuals protect themselves against feelings of embarrassment by expressing their feelings in an external way. They also blame

⁵ Correspondence concerning this project should be directed to Ashley Silverberg, 209 S. Kingshighway, Saint Charles, MO, 63301, as751@lionmail.lindenwood.edu

others for their failure, which leads to feelings of resentment towards others (Tracy & Robins, 2003).

According to Bynner (1981), people with low self-esteem are overwhelmed with various conflicts in their life. They try to please people such as family members, friends, and teachers or coworkers while attempting to improve their status with their peers. In return, they resort to delinquent and deviant behavior because they think it will make them more popular or improve their situation (Bynner, O'Malley, & Bachman, 1981). In fact, acts of violence are seen as a way of gaining self-esteem (Toch, 1992).

On the other side of this controversy, researchers believe that individuals with low self-esteem don't act out aggressively at all. For example, Baumeister, Bushman, and Campbell (2000) state that people with low self-esteem try to avoid threats or danger. Attacking someone would be seen as a risky behavior and those with low self-esteem would try to stay away from such actions (Baumeister et al., 2000). Baumeister et al (2000) also suggest that people with low self-esteem often submit themselves to an influence, whereas aggressive behavior often includes engaging in resistant behavior. Those with low self-esteem are too afraid to act out or rebel against others, so they merely conform to a group (Baumeister et al., 2000).

Further research on this topic provides even more uncertainty about on what really influences aggression. Baumeister, Smart, and Boden (1996) believe that high self-esteem is the cause for aggressive behavior. Violence has previously been seen in those who have very positive views of themselves and those with high self-esteem have shown the highest tendencies toward hostility and anger (Baumeister et al., 1996).

It is evident that there are many different views of self-esteem and its relation to aggressive behavior. The proposed study was designed to help discover the relationship between these two variables.

Two classic surveys, the Rosenberg self-esteem survey (Rosenberg, 1965) and the Buss and Perry Test of Aggression (Buss & Perry, 1992) were administered to participants recruited through the Lindenwood Participant Pool and the scores on the two surveys were correlated. The Rosenberg self-esteem survey was used despite its dated origin because it is highly reliable and very well-tested. Also, the Buss and Perry survey was used for its reliability and conventional use. The hypothesis of the present study is that self-esteem has a negative relationship with aggression. Therefore, individuals who have low self-esteem will display higher amounts of aggression.

Method

Participants

For this study, 37 individuals were recruited from the Lindenwood Participant Pool (LPP). The LPP is a program found on the Lindenwood University campus where undergraduate students can participate in research and studies done by other undergraduates. By using the LPP, all participants were recruited fairly and without coercion. LPP regulations also guaranteed that all participants were undergraduate students at Lindenwood University, were at least 18 years of age, and completed the LPP quiz allowing them to participate. If any participant was under the age of 18, a separate consent form was signed by the participant's parents/guardian so he/she could partake in the study. There were no restrictions on who was allowed to participate; therefore, no one was excluded.

A total of 19 men and 18 women participated in the study. Their ages ranged from 18-35 years old, with 20 years old being the mode. When asked if they were born in the United States, 30 of the 37 reported yes. Those that reported no were from a variety of countries including Azerbaijan, Armenia, Japan, Panama, Peru, Sweden, and the Ukraine. When asked how happy participants found themselves on a scale of 1-10, an average happiness of 8 was recorded. Also, an average number of 7.9 was recorded when participants were asked how much control they feel like they have over themselves on a scale of 1-10. This means that on average participants found themselves both happy and able to control themselves.

Materials and Procedure

Sign-up sheets and a study description form were posted by the experimenter on the bulletin board outside the LPP office. Participants signed up for a particular time slot (up to five people could sign up for one time) and went to their designated location. The study began by having each participant sign in on the List of Participants sheet. This allowed the researcher to have a record of participants to turn into the LPP office. Each participant was given two consent forms to read, understand, and sign. One consent form was for the experimenter and one for the participant to keep for his/her records (see Appendix A). Two surveys were given to each participant after the completion of the consent forms (see Appendices B and C). One was a self-esteem questionnaire including ten questions from Rosenberg's Self Esteem Survey (Rosenberg, 1965). The second survey contained 29 questions from Buss and Perry's Aggression Scale (Buss & Perry, 1992). These surveys were counterbalanced so that the order of the surveys would not skew the results. Participants were ensured that they can stop the experiment at any time if they felt uncomfortable without any penalty. After the surveys were complete, a demographic survey was given to each participant (see Appendix D). The survey asked participants to provide their

sex, age, and where they were born. They were also asked how happy they find themselves and if they think they control their actions in a reasonable way. These questions are important because the results could add more discoveries to the relationship between self-esteem and aggression. After this, the study was complete and a tip sheet and feedback letter was given. The tip sheet contained information on how to improve one's self-esteem as well as guidelines to decrease aggression (see Appendix E). The feedback letter contained information to debrief the participants and provide them with the experimenter's contact information (see Appendix F). Each participant also received an extra credit receipt for contributing to the study.

The room assigned by the LPP contained a few desks and tables so each participant can use it to fill out their survey. A few pens were provided for each participant to use as well.

Results

The goal for this study was to find a negative correlation between self-esteem and aggression. After all the data had been collected, a Pearson Correlation was computed which revealed a negative correlation of $r = -.246$. This means that participants with low self-esteem displayed higher scores of aggression. Although it is not quite of moderate strength, it certainly serves as some relationship.

A Spearman's correlation was also used to determine whether scores from the aggression survey were related to how participants ranked themselves as being able to have control over their actions. A moderately significant negative correlation was found, $r_s = -.406$. Therefore, those who scored lower on the aggression scale reported higher amounts of control.

A second Spearman's correlation was computed to determine whether the scores from the self-esteem surveys were related to how happy participants ranked themselves. A moderately

significant positive correlation was found, $r_s = .441$. This means that the individuals who scored higher on the self-esteem surveys reported themselves as being happy with their lives.

Finally, an independent t-test was conducted to determine whether there were any significant differences between men and women with relation to their demographic information. The results revealed that men reported having greater control over themselves ($M=.656$, $SD=2.859$) than women ($M= .246$, $SD=1.045$), $t(36) = 2.073$, $P<.05$.

Discussion

The results of the present study revealed that the hypothesis that self-esteem has a negative correlation with aggression was supported. Previous research findings indicate that there has been much debate over whether low or high self-esteem has a negative relationship with aggression. Although more recent research is finding that individuals with high self-esteem are acting out more aggressively, the present study's results show otherwise, as suggested by past studies.

There were some limitations within the current study. First, all participants were recruited through the Lindenwood Participant Pool meaning there was a very limited group of people available to the experimenter. Also, the experimenter was not able to achieve the ideal amount of participants; therefore, the results could have come out different with a larger sample.

In the future, there are a few revisions that could be made to this experiment. The most important would be to acquire a larger sample size. Also, instead of allowing the participants to write in their scores, they would have to circle or check a box for the appropriate answer. This is because some individual's handwriting was more difficult to read than others which allowed for the experimenter to decide which answer it indeed was. By circling or checking a box, it would be easier for the experimenter to determine the appropriate answer.

Another possible revision for the future would be to find different surveys to give to the participants. Although these surveys were highly reliable and there was no doubting their accuracy, individuals might have felt overwhelmed or self-conscious about them. It was obvious what each survey was trying to establish and even though the surveys were anonymous, participants could have felt guilty for recording their true feelings. If the surveys had more questions that were disguised, perhaps participants would have felt more comfortable answering honestly.

One last suggestion for this research would be to extend the variables. The current study was focused on physical aggression and self-esteem. However, as found through research, there are many different types of aggression. It is very possible that the results could have fluctuated if a different aspect of aggression was being focused on. The findings of the current study are more in tune with the definition of aggression from past studies; solely physical aggression. The more current research done on this topic, however, included other aspects like verbal aggression and hostility, both separate categories of aggression. This could be the reason why this study corresponds with the older findings.

The results of the current study could be very beneficial to help individuals reduce their aggressive actions. For example, if an aggressive person is aware that self-esteem has a strong link to their violent behavior, they can potentially use tools to increase their self-esteem, in turn reducing the aggression. Feeling positive towards yourself can be helpful in a multiple of avenues, not just in relation to aggression. This is why the tip sheet information was so valuable. As an unknown author said, "You must love yourself before you love another. By accepting yourself and fully being what you are, your simple presence can make others happy."

References

- Baumeister, R.F., Bushman, B.J., & Campbell, W.K. (2000). Self-esteem, narcissism, and aggression: Does violence result from low self-esteem or from threatened egotism? *American Psychological Society, 9*, 26-29.
- Baumeister, R.F., Smart, L., & Boden, J.M. (1996.) Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review, 105*, 5-33.
- Buss, A.H., & Perry, M.P. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology, 63*, 452-459.
- <http://www.psychology.iastate.edu/faculty/caa/Scales/BussPerry.pdf>
- Bynner, J.M., O'Malley, P.M., & Bachman, J.G. (1981). Self-esteem and delinquency revisited. *Journal of Youth and Adolescence, 10*, 407-441.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Toch, H. (1992). *Violent men: An inquiry into the psychology of violence*. Maryland: Library of Congress Cataloging-in-Publication Data.
- Tracy J.L., & Robins, R.W. (2003). Death of a narcissistic salesman: An integrative model of fragile self-esteem. *Psychological Inquiry, 14*, 57-62.

Appendix A

Informed Consent Form

I, _____ (print name), understand that I will be taking part in a research project that requires me to complete two surveys; one measuring self esteem and the other measuring aggression. I understand that I should be able to complete this project within 15 minutes. I am aware that my participation in this study is strictly voluntary and that I may choose to withdraw from the study at any time without any penalty or prejudice. I should not incur any penalty or prejudice because I cannot complete the study. I understand that the information obtained from my responses will be analyzed only as part of aggregate data and that all identifying information will be absent from the data in order to ensure anonymity. I am also aware that my responses will be kept confidential and that data obtained from this study will only be available for research and educational purposes. I understand that any questions I may have regarding this study shall be answered by the researcher(s) involved to my satisfaction. Finally, I verify that I am at least 18 years of age and am legally able to give consent or that I am under the age of 18 but have on file with the LPP office, a completed parental consent form that allows me to give consent as a minor.

_____ Date: _____
 (Signature of participant)

_____ Date: _____
 (Signature of researchers obtaining consent)

Student Researcher Name and Email:

Ashley Silverberg: as751@lionmail.lindenwood.edu

Supervisor:

Dr. Michiko Nohara-LeClair 636-949-4371 mnohara-leclair@lindenwood.edu

Appendix B

Rosenberg's Self Esteem Survey

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press. <http://www.yorku.ca/rokada/psycstest/rosenbrg.pdf>

Please rate each of the following items (1 = Strongly Disagree, 2 = Disagree, 3 = Agree, 4 = Strongly Agree) in terms of how characteristic they are of you.

1	2	3	4
<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>

1. I feel that I am a person of worth, at least on an equal plane with others
2. I feel that I have a number of good qualities
3. All in all, I am inclined to feel that I am a failure
4. I am able to do things as well as most other people
5. I feel I do not have much to be proud of
6. I take a positive attitude toward myself
7. On the whole, I ma satisfied with myself
8. I wish I could have more respect for myself
9. I certainly feel useless at times
10. At times I think I am no good at all

How to Grade: FOR RESEARCHER

Items: 1,2,4,6,7

Strongly agree = 3

Agree = 2

Disagree =1

Strongly disagree = 0

Items 3,5,8,9

Strongly agree=0

Agree = 1

Disagree =2

Strongly disagree =3

Appendix C

Buss and Perry's Aggression Scale

Buss, A. H., & Perry, M. P. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, 63, 452-459.

<http://www.psychology.iastate.edu/faculty/caa/Scales/BussPerry.pdf>

Please rate each of the following items (1-7: 1 = extremely uncharacteristic, 7 extremely characteristic) in terms of how characteristic they are of you.

1	2	3	4	5	6	7
<i>Extremely Uncharacteristic</i>					<i>Extremely</i>	
<i>Characteristic</i>						

- 1) Once in a while I can't control the urge to strike another person.
- 2) Given enough provocation, I may hit another person.
- 3) If somebody hits me, I hit back.
- 4) I get into fights a little more than the average person.
- 5) If I have to resort to violence to protect my rights, I will.
- 6) There are people who pushed me so far that we came to blows.
- 7) I can think of no good reason for ever hitting a person.
- 8) I have threatened people I know.
- 9) I have become so mad that I have broken things.
- 10) I tell my friends openly when I disagree with them.
- 11) I often find myself disagreeing with people.
- 12) When people annoy me, I may tell them what I think of them.
- 13) I can't help getting into arguments when people disagree with me.
- 14) My friends say that I'm somewhat argumentative.
- 15) I flare up quickly but get over it quickly.
- 16) When frustrated, I let my irritation show.
- 17) I sometimes feel like a powder keg ready to explode.
- 18) I am an even-tempered person.
- 19) Some of my friends think I'm a hothead.
- 20) Sometimes I fly off the handle for no good reason.
- 21) I have trouble controlling my temper.
- 22) I am sometimes eaten up with jealousy.
- 23) At times I feel I have gotten a raw deal out of life.
- 24) Other people always seem to get the breaks.
- 25) I wonder why sometimes I feel so bitter about things.
- 26) I know that "friends" talk about me behind my back.
- 27) I am suspicious of overly friendly strangers.
- 28) I sometimes feel that people are laughing at me behind me back.
- 29) When people are especially nice, I wonder what they want.

1-9 Physical Aggression; 10-14 Verbal Aggression; 15-21 Anger; 22-29 Hostility

Appendix D

Demographic Survey:

1. Sex (circle one): Male Female

2. Age: _____ years

3. Were you born in the United States? Yes No

 If answered no, which country were you born in?

4. On a scale of 1-10 (1 being the least happy; 10 being the most happy), how happy are you with your life?

5. On a scale of 1-10 (1 = having no control, 10 = having complete control), how often do you find yourself unable to control your actions?

Appendix E

Tip Sheet**To Increase Self Esteem:****Antcliff, Lyndon. 2007. Positive Thinking.**

- 1. Do what you love** - Everyone loves to do something, when you indulge yourself in your love you improve the way you feel about yourself. You improve your self esteem.
- 2. Help others out** - Nothing makes you feel a warm glow than when you unselfishly help others.
- 3. Acknowledge your strengths** - There is no one who has no strengths. Everyone is good at something, know what your good at and give yourself a pat on the back.
- 4. Don't put up with crap** - There is no reason you should tolerate other people being mean to you. Even if they say they are doing it with love. Make sure people know they should be nice to you and if they refuse, walk away from them.
- 5. Drop your negative friends** - Hang out with people who are positive and support you.
- 6. Do your research** - A lot of self help books are a waste of time in the sense that the only person who can change you is you.
- 7. Learn to accept compliments** - It's hard to accept a compliment and not to dismiss it as being ridiculous. Someone has an opinion and it should be respected, even if you do not agree with it. If people think good about you then maybe you should too.
- 8. Include positivity in your life** - Take a positive slant on everything automatically.
- 9. Compare yourself against yourself** - If you look at how you were yesterday and how you are today and there is an improvement then that is great.
- 10. There is no need for you to put yourself down** - By seeing yourself in a negative light you are only reinforcing your low self esteem.

To Manage Aggressive Behavior:**livestrong.com**

- 1. Address the behavior as soon as it happens** by talking to the person directly and letting him know that you cannot tolerate his behavior. Delaying this communication could send a message that the behavior is okay.
- 2. Set a boundary around the behavior** by communicating why the behavior is inappropriate and informing the aggressor that it will not be tolerated.
- 3. Discuss how the behavior impacts you** and others by telling the aggressor how it makes you feel. Shaming or chastising the person may incite more aggression.
- 4. Identify and communicate consequences** that will be enforced if the behavior continues. For example, let an aggressive friend know that you will cease all communication with him if he continues to be aggressive toward you.

Appendix F

Feedback Letter

Thank you for participating in this study. The goal was to find out whether self esteem has a relationship with aggression. In the past, there has been a lot of controversy with this issue. Historically, it is believed that individuals with low self esteem express more aggression. However, more recent studies have said the opposite; that those with high self esteem act out more aggressively. Within this study, I am trying to illustrate the validity of historic beliefs.

My hypothesis states that individuals who display lower amounts of self esteem will act out more aggressively than those who have a high amount of self esteem. Those with low self esteem are more likely to put up with bullies and internalize their emotions to the point where they break. Likewise, individuals with high self esteem think too highly of themselves to act out towards others.

This information is a very beneficial tool for those who play a major role in society. The results will allow for people to understand why people are acting out so aggressively and find a solution to the problem. It will also help those in social situations become more aware of themselves and how they act out toward others.

Please note that I am not interested in your individual results; rather, I am only interested in the results of a large group of consumers, of which you are now a part of. No identifying information about you will be associated with any of the findings.

If you have any questions or concerns regarding any portion of this study, please do not hesitate to bring them up now or in the future. My contact information is found at the bottom of this letter. If you are interested in obtaining a summary of the findings of this study at a later date, please contact me and I will make it available to you at the completion of this project.

Thank you again for your valuable contribution to this study.

Sincerely,

Principal Investigator:

Ashley Silverberg

as751@lionmail.lindenwood.edu

Supervisor:

Dr. Michiko Nohara-LeClair 636-949-4371 (mnohara-leclair@lindenwood.edu)

An Analysis of Classroom Environment: Researcher Dress vs. Test Performance

Ryan Holley⁶

In an attempt to increase student strengths while minimizing various weaknesses, respective levels of academia are constantly shaping teaching practices and standards. These efforts have ranged from those which pertain to physical classroom environment to those that have focused around individual teaching practices/styles. This research was conducted in an attempt to discern the implications of researcher dress on participant abilities to perform well on an achievement oriented questionnaire in the classroom. This study was based around the hypothesis that the success of individual participants completing an examination could be influenced as a result of the appearance of the researcher. This hypothesis assumes that participants will have higher levels of success in a classroom environment where the researcher is dressed formally (dress slacks / shirt and tie), while they will be more likely to achieve lower levels of success in a classroom environment where the researcher is dressed informally (jeans / t-shirt). Those who voluntarily participated were asked to complete a small 20-item questionnaire composed of ACT level math, English, reading and science based questions. They were also asked to complete a short demographic survey asking for their ethnicity, current student status, sex and whether or not they had previously completed the study. The results were then analyzed and correlated based upon the two conditions using an independent samples t-test.

In the United States, individual achievements throughout all of life's avenues are placed at a premium; this is no different in the academic world. As a service to our nation's students, various sources have continually tried to implement new techniques and variables into the

⁶ Correspondence concerning this project should be directed to Ryan Holley, Lindenwood University, 209 S Kingshighway, Saint Charles, MO, 63301,

classroom environment in an attempt to promulgate increased levels of achievement while dissolving various weaknesses. These endeavors have taken many forms and addressed many plateaus. At first glance, one may assume that the achievement of students in the classroom is based solely on the teacher and his/her techniques. While teaching technique may play a significant role in achievement, focusing on this variable alone allows environmental variables to seemingly drift out of the picture. These can range from how well lit the classroom is during studies, whether or not the student's desks are arranged in a uniform manner, or the overall appearance of the classroom (space between students, cleanliness, technology, and so on). The present study explores the question of whether a teacher's appearance has an influence on the academic performance of their pupils when test-taking.

Deciphering an adequate form of professorial dress which promotes increased levels of achievement amongst students can have significant implications on the overall successes of students in general. A surplus of government funding has been directed towards understanding what constitutes a proper classroom environment conducive to learning but there has been mixed results. A variety of scholars feel that increased lighting in classrooms can play a large role in the achievement of students (Butler & Roesel, 2010; Young, 2002). Although lighting is important, many lean towards the idea of uniform arrangements of desks as a catalyst for success amongst students (Freeburg, Hagler, Workman, & Anderson, 2008; Richmond, 2001; Young, 2002). Despite increased efforts there has yet to be a single variable identified as the source of achievement in the classroom; therefore, many scholars believe that it is a combination of several environmental classroom characteristics that play a role in student achievement, rather than it being dependant on just one variable.

In terms of the dress-code of teachers in the classroom, it can vary anywhere from very

formal to casual, ironically no uniform dress-code has been identified for teachers in our current academic settings. There is currently great variability among teachers in terms of how formal or informal they choose to compose themselves in the classroom setting. It is thought by many that establishing a dress-code for teachers across the world, will aid in defining the teacher as an authority figure to students, ideally leading to increased cooperation from students (Amazon, 2009; Doll, Spies, LeClaire, & Kurien, 2010). Identifying an adequate dress-code for teachers is a legitimate problem in the world of academia and without more research pertaining to this idea it will undoubtedly continue.

There has also been a variety of research conducted relating to dress-code and achievement in the workforce. A study previously conducted reveals evidence that your perceptions towards your own success can be positively related to your own physical appearance (Solomon, 1981). If this is true, then identifying an adequate dress-code for teachers could actually have beneficial implications towards the teacher's perceptions of themselves and their own abilities that could then be projected onto their students. Other related research has been conducted in relation to effective personal presentations when interviewing for possible employment. The findings suggested that job applicants can present themselves in positive and negative lights depending upon the clothing that they are wearing, as well as, the context of the situation (whether it be formal or informal). These representations can weigh heavily on the perceptions of those interviewing job candidates (Miles, 1981). This is also relative to the classroom, because if students view their teachers in a positive light then they will be inclined to listen to what they are teaching; therefore, learn more. Similarly, it is conceivable that teachers who dress more formally would be perceived more favorably by students, which could in turn affect student learning.

Should a positive correlation between student test taking ability and teachers' dress be found, this information could potentially be used to promote academic success when taking tests. By promoting increased levels of achievement in the classroom, this research will also shed light onto the underlying physical (Environmental/Dress-Code) ingredients necessary for an environment conducive to learning.

There has been previously conducted research which focused on the implications of teacher dress-codes and the varying levels of achievement from their students. Some researchers have suggested that a teacher's appearance can play a significant role in the establishment of a good relationship between themselves and their pupils (Perlmutter, 2005; Richmond, 2010). Other studies have suggested that roughly 55% of individual perceptions of teachers from students can be based largely on dress (Freeburg, et al., 2008). Positive interactions between students and teachers can be essential in promoting academic achievement throughout classrooms across western society. If there is positive correlation between the physical appearance and the ability to students to perform well on tests, then this may also promote strong interactions between students and teachers. It has also been found that African American teens in America tend to form their initial perceptions of teachers and peers as a result of their perceptions of their dress (Ellington, & Leslie, 2008).

The present study was conducted in an attempt to determine whether there are differences in test performance, based on the type of clothing worn by a researcher who was present at the time of the test. The hypothesis for this research stated that the varying levels of student success taking examinations can be predisposed to the influence of environmental variables found throughout the classroom in which they are given. The research will test whether or not individuals will have higher levels of achievement in environments which promote success

(formal dress), as opposed to decreased levels of success in environments which do not promote success (informal dress). This study drew from the earlier research findings, claiming that roughly 50% of individual perceptions of teachers are dictated by appearance alone, and discover whether there is any correlation between these variables. This study was completed by means of an independent-groups design.

Method

Participants

Included in this research were both male and female undergraduate students currently enrolled at Lindenwood University. In the event that a participant's age was under 18, a parent or guardian was to provide the informed consent needed for their participation. The total number of participants processed in this study was 49, 22 of which were in the informal condition while 27 were in the formal. Of all those that participated, 23 identified themselves as being freshman, 16 as sophomores and 10 as juniors. In terms of ethnicity, of the 49 documented participants 28 were Caucasian, 5 African American, 5 Hispanic, 3 Asian, 3 European, 3 African, 1 Hawaiian and 1 Aruban. In terms of sex, 24 males were recruited as opposed to 25 females.

The researcher recruited all participants ethically through the Lindenwood Psychology Department's Participant Pool. Those eligible for participation must have been current Lindenwood University undergraduate students whom are presently enrolled in (at least one of) several pre-approved courses. The researcher posted a sign-up sheet prior to the Lindenwood Participant Pool approved dates of research, allowing those willing to participate to do so at their own convenience. Both conditions of this experiment were held in classrooms composed of stadium seating desks which remained consistent throughout.

Materials

All who chose to participate were given two copies of the researcher's informed consent letter (see Appendix A) before any actual research was conducted. After participants completed these forms, they were then asked to fill out a demographic survey (see Appendix B) asking for their, sex, ethnicity, current student status (year) and whether or not they had previously completed the study. This information was obtained in an attempt to understand any possible trends based upon these variables. Upon completion of the demographic survey participants were then provided with a copy of the 20-item questionnaire pertaining to English, math, science and reading, which they were then asked to complete (see Appendix C). The items on the questionnaire were gathered from college ACT test practice questions. After completing the questionnaire each participant was then handed a feedback letter (see Appendix D) that contained the actual nature of the research and its possible benefit to society. The letter also contained contact information of the researcher and their supervisor. Before leaving the study participants were asked to completely fill out their receipts confirming their completion of the study. These receipts were then used as a means to receive extra credit through certain approved Lindenwood Participant Pool approved professors.

The researcher documented all of their participants on a "list of participants" which was then given to the Lindenwood Participant Pool office on a weekly basis. All of the researcher's conversations with the participants were scripted (see Appendix E) throughout the duration of the experiment in an attempt to ensure that individual performance of the participants could only be altered by the designed independent variable of the experiment, which was the physical appearance/dress of the researcher. The locations of the conducted research were in the Lindenwood University Science Building (Young Hall). The researcher used two comparable stadium seating classrooms with seating capacities of 30-45 students. The researcher dressed

informally (jeans and a t-shirt) in condition one of the experiment, while dressing formally (dress slack/shirt and tie) throughout condition two.

Procedure

As participants arrived at the elected classroom for research, they were each informed that they were about to participate in research that was intended to measure their knowledge of college ACT level English, math, science and reading questions. Before beginning the study participants were handed two copies of the expressed informed consent form, one of which they were to keep while the other remained with the researcher; upon their understanding of the research and their written agreement to participate they were allowed to begin the study. Each participant was then guaranteed that they were welcome to terminate their participation in the study at any time, should they become uneasy or distraught. All instructions dictated to participants by the researcher were scripted.

Throughout condition one of the study, each participant was administered a demographic survey followed by a 20-item questionnaire in the presence of the informally dressed researcher (jeans and a t-shirt). Participants were each allotted 20 minutes to adequately complete their questionnaires while there was no time limit for completion of the demographic survey. In the event that a participant could not complete their questionnaire within the time constraints, they were firmly instructed to disengage their efforts and those questions that were not completed were counted as incorrect while the completed portion was graded for accuracy. Subsequent to the conclusion of the experiment, participants were debriefed as to the purpose of the study and given a duplicate of the researcher's feedback letter. After debriefing was completed participants were then handed a participant receipt of which they were to accurately complete. Before exiting, they were then instructed to fill out the information required by experimenter's list of

participants in an attempt to document their presence. In condition two, the very same procedure was carried out with the only difference being the formality of the researcher's dress (dress slacks/dress shirt and tie).

Results

In order to analyze the results of both conditions, an independent samples t-test was used. The results showed a significance level of $p > .289$ between both the informal and formal conditions, demonstrating no significance. A t-score of $t(49) = -1.073$ also determined that there was no significance between the two conditions. There was a standard deviation from of 3.1 (SD = 3.1) in the informal condition, while it was only 2.9 (SD = 2.9) in the formal condition. In terms of differences between genders, the 24 men which participated had an average score of 13.1 while the 25 women that participated had an average score of 13.56, out of a possible 20 questions. Although there is a numerical difference between these two cohorts, there is not enough variation to indicate significance. No one received a perfect score on the questionnaire in either condition.

Discussion

Following the completion of a statistical analysis of the results it was found that there was no significance between the formal and informal conditions. Due to the relative consistency in scores between both males and females, as well as, between the formal and informal conditions, the researcher is confident that the questionnaire was adequately standardized. Despite the intentions of this research, it has become evident that throughout the proposed conditions, the dress of the researcher had little or no implications on a participant's ability to do well on a questionnaire, regardless of sex. Although there has been previous research which was concerned with other physical attributes of the classroom environment, the results of this study

imply that dress of researchers performing the role of a teacher will not influence a student's ability to perform well on achievement oriented examinations (Freeburg, et al. 2008; Young, 2002).

Although outlining an appropriate dress code for teachers may not influence a student's ability to perform well in the classroom, there has been evidence which promotes the idea that appearance can influence interactions between students and their teachers (Perlmutter, 2005; Solomon, 1981). Similar research has expanded on this idea and found that nearly half of all individual perceptions of others can be influenced by their appearance (dress); therefore, efforts to standardize an appropriate dress code for faculty members at all levels of academia could at the very least, lead to higher student morale and an impetus to perform well in the classroom through better interactions with their professors. (Freeburg, et al., 2008; Miles, 1981; Solomon, 1981).

While the researcher feels that the questionnaire itself was appropriately piloted and standardized for both males and females of varying ethnicity and student status, there are still a few sources of inconsistency which may have influence the results of the study. Although participation in this study implied that participants would exert their best efforts when completing the questionnaire, it is practical to believe that several did not. All of those that voluntarily chose to participate in the study were compensated with extra credit for their participation and had no implicit reason to do well. Keeping this in mind, it is conceivable to assume that some completed their questionnaire without exerting much effort. This may be the cause of such low overall results on questionnaire. While this may have influence the results, because of the consistency of scores between the two conditions the researcher feels that the questionnaire was piloted appropriately.

Another source of variance could have been the time of day in which the questionnaires were administered. Due to restrictions upon the researcher's ability to attain locations to conduct the study, all sessions were completed in the late afternoon. This time of day is typically when individuals enter into somewhat of a cognitive lull and are not willing to exert their full efforts. Many of those that participated in the study mentioned that they were rushing to various athletic practices while others had a look of disdain as they meandered into the study location. This is a typical response from college students who have just spent the entire day in the classroom. This lack of enthusiasm and the pressures of later engagements may have influenced the results of the study.

A conclusion drawn from the results of the study which was not articulated in the statistical analysis was the tendency of participants to perform very poorly on the math section of the questionnaire. The majority of those that chose to participate in the study got nearly every math related question incorrect. While this occurrence could be the result of any number of interpersonal differences between participants such as overall intelligence, apparent difficulty or the implications of researcher dress, this occurrence was still unexpected. It would be very difficult to discern the actual source of the discrepancy between the mathematics sections of the questionnaire compared to the others respective sections; however, the prevalence of incorrect responses was very high nonetheless.

Validity was also a key shortcoming of this research. Although the standardization of the questions on the questionnaire and the allotted time for its completion were appropriate, the sheer lack of participants ($n = 49$) does not allow the results to translate well to the general public in western cultures. As a result of the consistency between the results of the formal and informal conditions, it is apparent that the research had a high level of internal validity. For future

research, increased numbers of participants would be paramount in an attempt to generalize the results and attain some level of external validity. This lack of external validity is a pronounced limitation of this study.

Despite the limitations of this study, the results can still be used to benefit various avenues of the academic world in our society. Due to the current social climate of our culture, the success of students in the classroom will continue to receive increased amounts of attention. Understanding the numerous variables that can influence a student's ability to perform well on achievement oriented examinations will remain at the forefront of academic research efforts and as a result of this study, light has been shed on the possible lack of influence that a researchers dress can have on the participants varying levels of test taking success in the classroom. Although the research had low levels of external validity, the premise of the study did not. Through the recruitment of more participants, the results of the research could be progressively more justifiable. This could lead to eventual solutions to some of our nation's shortcomings in the classroom and lead to increases in the education of our society's youth.

References

- Amazon. (2009). The costume of a teacher. *The Elementary School Teacher*. Retrieved May 11, 2010, <http://www.soerlandetskal.com/5-the-costume-of-a-teacher>
- Butler, S. & Roesel, K. (2010) The influence of dress on students' perceptions of teacher characteristics. *Sage Journals Online*.
- Doll, B., Spies, R.A., LeClaire, C. M., & Kurien, B. P. (2010). Student perceptions of classroom learning environments: Development of the classmaps survey. *School Psychology Review*, 39(2), 203-219.

- Ellington, T. & Leslie, C. (2008). Dress, self-esteem, self-efficiency and the academic achievement of African-American high school girls. *International Journal of Fashion Design, Technology and Education*. 1(2), 69-78.
- Freeburg, B., Hagler, B., Workman, J. & Anderson, M. (2008, May). *Perceptions of CTE teacher professionalism: Appearance, voice, & message*. Paper presented at the meeting of Research - Developing Teachers for CTE, Hilton, SC.
- Miles, H. E. (1981). Effective personal presentation in job interviews. *The University of Houston: Dissertations & Theses*. 171.
- Perlmutter, D. L. (2005). Physical appearance and student/teacher interactions. *Education Digest: Essential Readings Condensed for Quick Review*, 70(7), 52-57.
- Richmond, V. (2001). Teacher nonverbal immediacy: Use and outcomes. *West Virginia University*, Retrieved on Sept. 27, 2010, from <http://www.as.wvu.edu/~richmond/articles/ch6-richmond-teacher.pdf>
- Solomon, M. R. (1981). Dress for success: Clothing appropriateness and efficacy of role behavior. *The University of North Carolina Chapel Hill : Dissertations and Theses*. 78.
- Young, D. (2002). Classroom environment: The basics. *K-12 Teaching and Learning: UNC School of Education*. Retrieved May 11, 2010, from <http://www.learnnc.org/lp/pages/734>

Informed Consent Form

I, _____ (print name), understand that I will be taking part in a research project that requires me to complete a small demographic survey and a short questionnaire asking general ACT level questions pertaining to science, math, reading and English. I understand that I will be allotted 20 minutes for my completion of the questionnaire. I am aware that my participation in this study is strictly voluntary and that I may choose to withdraw from the study at any time without any penalty or prejudice. I should not incur any penalty or prejudice because I cannot complete the study. I understand that the information obtained from my responses will be analyzed only as part of aggregate data and that all identifying information will be absent from the data in order to ensure anonymity. I am also aware that my responses will be kept confidential and that data obtained from this study will only be available for research and educational purposes. I understand that any questions I may have regarding this study shall be answered by the researcher(s) involved to my satisfaction. Finally, I verify that I am at least 18 years of age and am legally able to give consent or that I am under the age of 18 but have on file with the LPP office, a completed parental consent form that allows me to give consent as a minor.

_____ Date: _____
 (Signature of participant)

_____ Date: _____
 (Signature of researcher obtaining consent)

Student Researcher Name and Number:

Ryan Holley
 (636) 698-4229

Rjh770@lionmail.lindenwood.edu

Supervisor:

Dr. Michiko Nohara-LeClair

Course Instructor

(636)-949-4371

mnohara-leclair@lindenwood.edu

Appendix B

Demographic Survey

Participant ID: _____

Please fill in your responses to the following questions:

Sex (Male/Female): _____

Current Academic Standing (freshman, sophomore, junior, senior): _____

Ethnicity (Caucasian, Hispanic, African American, etc): _____

Have you previously participated in this study? _____

Appendix C

Participant ID: _____

Questionnaire

Please circle the correct answer.

- 1) For beginning climbers, that is any who have not already scaled several major mountains, Mount Everest seems too difficult to tackle.

What correction should be made to this sentence?

- A) Change the spelling of several to sevaral
 - B) Change seems to seem
 - C) Insert a comma after is
 - D) No correction is necessary
- 2) Last Fall, Congressman Smith from Nebraska had five relatives arrive for Easter, with no notice.

What correction should be made to this sentence?

- A) Change Fall to fall
 - B) Change Congressman to congressman
 - C) Change arrive to arrives
 - D) Change Easter to easter
- 3) Small companies offer a new employee more responsibility, and there health benefits are generous.

What correction should be made to this sentence?

- A) Change companies to companys
- B) Change responsibility to responsability
- C) Change there to their
- D) Change are to is

- 4) During a family crisis, it is often a member of the immediate family WHOM calls the Police Department.

Which one of the following is correct as it relates to the underlined word.

- A) NO CHANGE
- B) Who
- C) Whoever
- D) Whomever

- 5) Bob hopes that his car WILL last at least until the end of the month.

Which one of the following is correct as it relates to the underlined word

- A) NO CHANGE
- B) Would
- C) Could
- D) Shall

- 6) Sara has some oranges. She sold 40% more than she ate. If she sold 70 oranges, how many did she eat?

- A) 25
- B) 50
- C) 75
- D) 100

- 7) Peter's weight is 12 pounds more than twice Susan's weight. Find Peter's weight if together they weigh 150 pounds.

- A) 84 lbs
- B) 104 lbs
- C) 120 lbs
- D) 152 lbs

- 8) Mike received a 10% raise each month for 3 consecutive months. What was his salary after the three raises if his starting salary was \$1000 per month?

- A) \$1300
- B) \$1331

- C) \$1248
- D) \$1500

9) 100 people will attend a dance if tickets cost \$30 each. For each \$5 increase in price, 10 fewer people will attend. What price will deliver the maximum dollar sales?

- A) 30
- B) 35
- C) 40
- D) 45

10) Which of the following could not be a solution to: $4 - 3x < -3$?

- A) 3
- B) 2.5
- C) 2
- D) 4

11) Which one of the following is not in the insect family?

- A) Mosquito
- B) fly
- C) Bee
- D) Cardinal

12) Charles Darwin suggested that species evolve by means of...

- A) Motivation
- B) Selection
- C) Mutation
- D) Evolution

13) Photosynthesis in plants does not require the availability of...

- A) Oxygen
- B) Carbon Dioxide
- C) Water

D) Light

14) pH is a measure of...

- A) Acidity
- B) Temperature
- C) Air Pressure
- D) Weight

15) What is mitosis?

- A) Mitosis is a sexual process that combines cells for the purpose of growth.
- B) Mitosis is a process in which cell division produces gametes for sexual reproduction.
- C) Mitosis is the process to carry genetic code from the DNA.
- D) Mitosis is an asexual process in which cells divide for the purpose of growth and repair.

Please read the following passage and respond to the questions accordingly.

It was a warm and sunny day. My friend and I had decided to go for a walk in the park and I was beginning to feel a little hungry. I knew I should have eaten before we left, but I was so busy that morning. I had to perform various chores around the house and by the time I had completed my duties, Matt had already arrived. As we walked to the park I began to wonder how I was ever going to finish my homework later that night. We had been given several Math equations to solve and I have never been very good in the subject to begin with. By now we had arrived at the park and it was beautiful. Matt and I walked to a nearby basketball court because we viewed some of our friends playing. I loved basketball myself, but Matt was not much of an athlete. He would have much rather preferred playing video games that afternoon, but I somehow coaxed him into leaving his basement to get some fresh air.

16) What is the relationship between the two main characters in this passage?

- A) Strangers
- B) Friends
- C) Enemies
- D) Brothers

17) Where are the two main characters going in the passage?

- A) School
- B) Work
- C) The Park
- D) Home

18) What sports is Matt “good” at?

- A) Basketball
- B) Football
- C) Hockey
- D) He is not athletic

19) What is the weather like outside?

- A) Rainy
- B) Windy
- C) Overcast
- D) Sunny

20) What did the main character have to do before they went to the park?

- A) Homework
- B) Chores
- C) Shopping
- D) Nothing

Appendix D

Feedback Letter

Thank you for participating. There were two conditions in my study. Condition one was conducted in a formal classroom setting in which the researcher was formally dressed (dress pants/shirt and tie), while condition two was conducted in an informal classroom setting in which the researcher was informally dressed (jeans/t-shirt). I believed that individual success of students taking achievement-oriented examinations could be influenced by the environment in which the examinations were administered (the appearance of their researcher). I thought that students would perform better in an environment conducive to achievement (formal dress); whereas, students would perform worse in an environment which did not promote achievement (informal dress). The results of the questionnaires will be used to determine the effect of classroom environment and the dress of instructors on student academic achievement. The results of this study are very valuable to the world of academics, because they can be used as a tool to promote higher academic achievement in the classroom.

Please note that I am not interested in your individual results; rather, I am only interested in the results of a large group of consumers, of which you are now a part of. No identifying information about you will be associated with any of the findings.

If you have any questions or concerns regarding any portion of this study, please do not hesitate to bring them up now or in the future. My contact information is found at the bottom of this letter. If you are interested in obtaining a summary of the findings of this study at a later date, please contact me and I will make it available to you at the completion of this project.

Thank you again for your valuable contribution to this study.

Sincerely,

Principal Investigator:

Ryan Holley (636)-698-4229 (rjh770@lionmail.lindenwood.edu)

Supervisor:

Dr. Michiko Nohara-LeClair (636)-949-4371 (mnohara-leclair@lindenwood.edu)

Appendix E

Script

- Welcome, thank you for choosing to participate in my study. Will you please read through the informed consent form, and if you agree to participate, please sign and date both copies.

- You are about to participate in a study that measures your knowledge of college freshman level English, math, science and literature. You will be given 20 minutes to complete the 20 item questionnaire and demographic survey. If you have any questions feel free to ask. If for any reason you feel uncomfortable or upset, you may leave the study without any penalty.

Perceived Racial Expectations of Children

Jessica R. Roesslein⁷

Racism is an ever-evolving aspect of our society. Although the overt racism of the past may be behind us, indirect discrimination still prevails today. The proposed study aims to reevaluate race in today's youth so as to fill the gap of current, relevant research, especially in children. Racism can cause a host of detrimental mental and physical health effects ranging from cardiovascular disease in adults to ADHD in children. It is not only overt acts of racism that cause these effects, but ambiguous acts of racism as well. Therefore, my proposed study aims to identify prejudices in children through the use of a picture containing ambiguous scenes of children at play. Participants will identify if the scene is prosocial or conflict and identify if the child instigating the act is black or white. If prejudices in children can be identified, it can begin to make parents, students, and educators more aware of their underlying prejudices, as well as bring interest to discovering ways to prevent it.

This proposed study aims to provide insight into what type of situations prejudice occurs in children and when. In the United States it is considered unacceptable to participate in acts of outright discrimination, but in ambiguous racist acts, this solid norm can be blurred (Marino, Negy, Hammons, McKinney, & Asberg, 2007). Few members of society show full blown racism by committing hate crimes and showing overt discrimination but unintentional racist tendencies like avoiding walking past a large group of minorities are still prevalent in our society (Buhin & Vera, 2008).

⁷Correspondence concerning this project should be directed to Jessica R. Roesslein, 209 S. Kingshighway, Saint Charles, MO, 63301, jrr626@lionmail.lindenwood.edu.

Findings show that discrimination in our society has not been eliminated. Within a lifetime, African American adults believed that they were victims of racism 100% of the time. 99.4 percent of those surveyed reported that racism was a source of stress in their lives (Kessler, 1999). In a survey of children ages 8 to 13, 88 % reported experiencing at least one act of racial discrimination against them. These acts occurred in both school and community settings, with both peers and adults as the discriminating party (Pachter, Bernstien, Szalacha & Coll, 2010). In another study of fifth grade students, 15 % experienced perceived racism, with 80 % of the discrimination occurring at school (Coker, et al., 2009). Another study also noted that the majority of racial incidents occurred within the school system (Flanagan, Syvertsen, Gill, Gallay, & Cumsille, 2009). These studies show the significance of how early in life discrimination occurs, and how widespread it is on our society, especially within schools.

Not only is discrimination common but it also has detrimental effects on health. Perceiving prejudicial experiences is positively correlated to instances of negative mental health effects in adulthood. It is not just overt acts of racism that cause harm, but more often than not things like exclusion and rejection cause the most harm (Broudy, et al., 2006). Since they occur more frequently than overt acts, they can then become a common part of one's life, causing chronic stress. Interpretations of acts of discrimination begin to change as these encounters continue to occur. Continuing discrimination causes intensification of negative feelings during future acts of discrimination (Broudy, et al., 2006). Since the negative feelings continue to be heightened, coping strategies begin to become depleted causing an increase in the risk of cardiovascular disease, and other stress related diseases (Broudy, et al., 2006).

In children, individuals who reported an experience with racism were more likely to exhibit symptoms of four mental health disorders; attention deficit hyperactivity disorder,

depression, conduct disorder, and oppositional defiant disorder (Coker, et al., 2009). Therefore, catching discrimination early on is vital to helping reduce stress and improve physical and mental health among children and adults, within the school system and society at large.

Once racism is detected, prevention programs may be put in place to help combat racism. Buhin and Vera (2008) offer five recommendations for such a program; (a) to create opportunity for meaningful interactions between those of different races, (b) have school staff and parents model positive interracial interactions (c) discuss facts about different racial groups and discuss stereotyping and oppression of different racial groups (d) have skilled staff available to discuss emotional trauma of discrimination, which creates a safe discussion environment (e) group discussion on common human experiences. Although these are only suggestions, they are useful in starting to combat racism in our society.

Prejudice is a well studied subject but research has revealed contradictory results. The study by Clark and Clark (1947) is probably the most noted research pertaining to prejudice in children. Of the many different aspects Clark and Clark tested, they found that all children, regardless of race, preferred the doll with white skin over the doll with black skin (Clark & Clark, 1947). Although Clark and Clark found that all children preferred the white doll, a later study by Habra and Grant (1969) found that children of both races preferred the doll associated with their own race. Another interesting note is that the preference for their race continued to increase with age (Hraba & Grant, 1969). The United States has had a fluctuating history in regards to the race related social climate, and the climate during each if these studies is no exception. Habra and Grant (1969) suggested that ethnic pride at the time could have contributed to the difference of results. They noted that in the years before the study a black pride campaign had been in place, possibly enhancing positive associations with the black doll.

Overt discrimination of the past may no longer exist, but smaller prejudices live on, even today. In a more recent study by Jordan and Hernandez-Reif (2009), computer generated drawings took the place of dolls. In addition to this, two other skin tones were added creating a total of four different skin tones in which the child could choose from. When choosing from all four, children showed no preference for a specific skin tone, but when the choice was narrowed to only black and white skin tones, the results changed (Jordan & Hernandez-Reif, 2009). Caucasian children choosing from the white or black drawing preferred their own race; African American children, on the other hand, were split in their decision and varied in whether they preferred the white or black drawing (Jordan & Hernandez-Reif, 2009). Within the literature reviewed, all yielded varying results. These dissimilarities are a result of the ever changing racial climate in which we live, highlighting the need for continuing research. Since racism can be detrimental to both mind and body, using research to examine racism, especially in children is a worthwhile venture.

Surprisingly, overt racism can often be much easier to cope with than ambiguous acts of discrimination (Bennett, Merritt, Edwards, & Sollers, 2004). For this reason, ambiguous situations can be more detrimental to one's health, both physically and mentally. Consequently, the proposed study will focus on the ambiguous prejudices of children.

Children ages 5-12 years were eligible for this study for several reasons. First, Habra and Grant (1969) found that children in their study (ages 3-7 years) preferred their own race more frequently as their age increased. This upward trend was expected to continue and therefore a higher median age was utilized as to hopefully yield more pertinent results. In addition, Jordan and Hernandez-Reif (2009) also used children ages 3-7 years which could have contributed to

the variation in African American preference for race. Both of these studies are more recent, and therefore more relevant to the participants in this study.

Yet another reason to use a slightly older sample of participants is the stages of prejudice in which individuals go through. Nesdale (1999) suggested four different stages of prejudice. It was in the ages from 7 on that prejudices become concrete in the child's mind and begin to surface. The children in the current study are contained mostly in this stage, which will increase the likelihood of tangible results.

In the proposed study, prejudice in children will be examined through the use of a drawing that represents three focus areas containing ambiguous situations of children at play. Each will contain one African American child and one Caucasian child. The child will be asked to describe what is happening in the drawing and the results will be coded as either prosocial or conflict and it will be noted of which race the action is attributed to. Based on the outcomes of the reviewed literature, the proposed hypothesis is that participants will show an inclination towards their own race by interpreting the children in each focus area in a way that is more favorable to their own race.

Method

Participants

Participants for the proposed study will be recruited from the area public school system, through an afterschool program. This will keep students from missing classroom time. Only African American and Caucasian children will be eligible to participate in the study, since they are the only races represented in the drawing they will be shown. Children must also be between the ages of 5 and 12. The students who meet these requirements will be required to obtain written

parental consent, as well as verbally assent to the study themselves. Participants' race and age will be presented as percentages, therefore providing a composition of the sample.

Materials

The proposed study will be conducted at the location of recruitment (i.e. the school in which the student is currently attending). Interviews will take place in a private area away from other students and free from distractions. This area should be well lit and contain at least one table and two chairs. Two drawings (drawings A and B) (see Appendices A and B) will be utilized for this study, although the participant will only be presented with one during the interview. Each drawing will contain the same three focus areas that could be determined as either prosocial or conflict. (1) Children sharing candy/children stealing candy (2) Children playing tag/ children pushing one another (3) Children helping pick up books/ children knocking books out of the others hands. Drawing A and B differ only on the side of which the races are presented. The participants' responses to the drawing will be recorded with pen and paper and will later be coded by the researcher. A blind judge will help ensure the consistency of the researcher's coded results.

Procedure

Prior to the start of the study a packet of information will be emailed to the school district for approval to utilize their students in the study. This packet will include; a letter of intent (see Appendix C), the parental consent form (see Appendix D), a letter to the principal and principal consent (see Appendix E), Lindenwood University Institutional Review Board disposition letter (see Appendix F), Copy of the researcher's background check (see Appendix G), copy of the researcher's ethics training certificate (see Appendix H), and both drawings to be used (see Appendices A and B). Parents will receive a permission form to be filled out (see Appendix D),

as will the principal or administrator (see Appendix E). The packet of information for the school district will be emailed to a director for review and upon his consent a meeting will be set up to introduce the study to the director of the afterschool program. The research will be presented at this meeting and if approved, the afterschool director will sign the principle or administrator consent form (see Appendix D). The afterschool director will indicate which students are eligible (African American and Caucasian students age 5-12) and a parental consent form will be sent home with those students. Those students who return the signed parental consent form will be asked to verbally assent to participate in the study in front of an adult witness (i.e. teacher or administrator).

After these procedures have been completed each participant will be individually called into the interview area. At this time the participant will be reminded that they may leave the study at anytime without prejudice or penalty. Once this is done the child will be seated next to the researcher and will be presented randomly with either Drawing A or B (see Appendices A and B). The child will be asked "What do you think is happening in this picture?" As the participant describes each area they will be asked which child is instigating the action they described. If the participant does not comment on one or more of the focus areas they will be further prompted, "And what are these children doing?" If the participant still does not respond they will not be asked any further questions regarding the area. All of the participants' responses will be recorded with pen and paper. At the completion of the interview the children will be asked if they have had any prior knowledge of the study, they will be debriefed, and then return to their classroom. The next child will then be interviewed. This will continue until all eligible participants have been interviewed. At the completion of all interviews parent feedback letters

(see Appendix I) will be sent home with participants and the afterschool director will also receive a feedback letter (see Appendix J).

Analysis

For the demographic data collected, nominal data (gender and ethnicity) will be collected and reported as percentages. Equal interval data (age) will be computed and reported as means and standard deviations.

Results of the interview will be coded as either prosocial or conflict, and it will be noted which race has instigated what action. The relationship between the races of participants and the race (Caucasian or African American) and action interpreted (conflict or prosocial act) in the drawing will be examined. Results will be assessed, first by the researcher (white female undergraduate student) and then by a blind judge.

Discussion

In conclusion, this proposed study will examine possible ambiguous prejudices of children in the present day, adding to data in the ever-changing climate of race. By studying race in children we can get insight into the prejudice of children and begin to answer questions on how to prevent racism.

Possible limitations of the proposed study should be mentioned. First, the sample of children will be taken from few schools all within the same suburban area, while this represents the area in which the data was taken, one should be cautious when generalizing the data. Another limitation is that utilizing a cartoon drawing may not seem as realistic, and therefore may not represent how the child would react to real life situations.

Despite the limitations of the study, the implications could prove far-reaching. The proposed study fills the gap of knowledge on current relevant data regarding children. Past research has

focused on objects such as dolls to get data on prejudice. By taking it a step further, using real life situations depicted in a drawing, this could produce a more accurate depiction of childhood prejudice. If the results of the study reveal prejudice in children, it could open the door on future research to help prevent it. By catching discrimination early on and preventing it, it in turn could lead to the decrease in health effects related to racism. These health effects include cardiovascular disease and other stress related health concerns in adults, as well as attention deficit hyperactivity disorder and conduct disorder in children.

By bringing to light racism in children; parents, students, and educators can be made more aware of underlying prejudices. This awareness will hopefully breed reform in schools. Since the school system has a very controlled curriculum and strives to provide its students with a stress free learning environment, knowledge of racism can begin a process of removing it, creating an environment more conducive to learning.

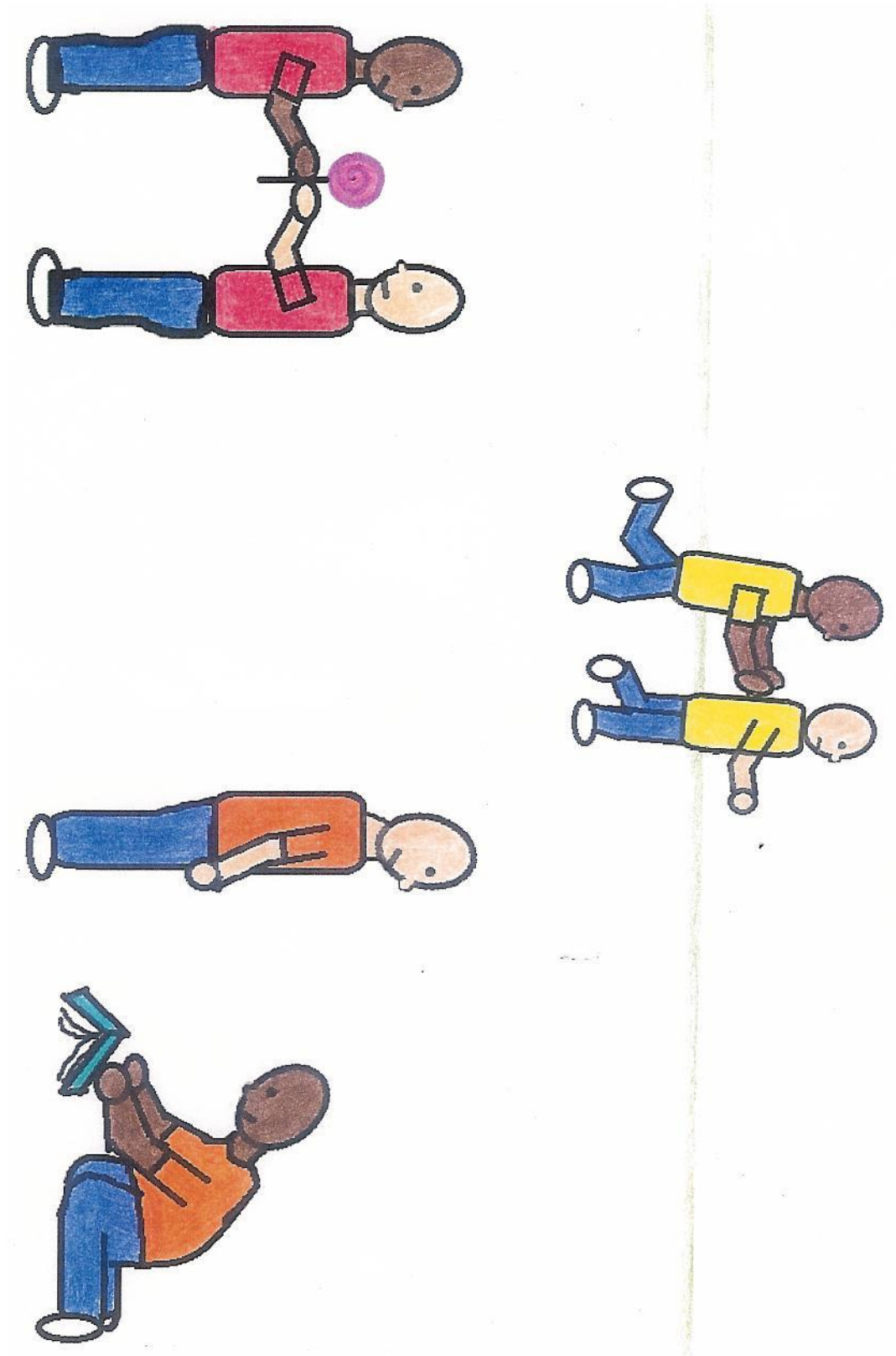
Mere participation in the study could open up discussion of race in the home and help people to reevaluate their thoughts on the current state of race in America.

References

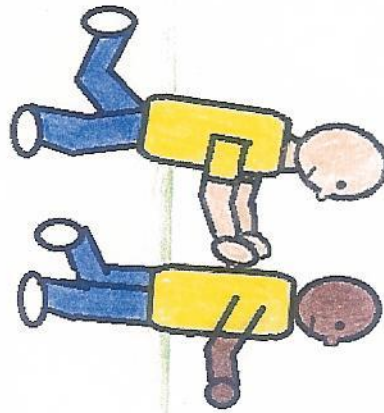
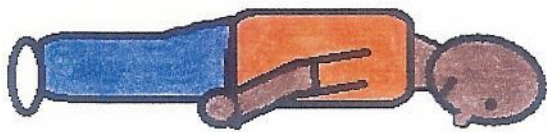
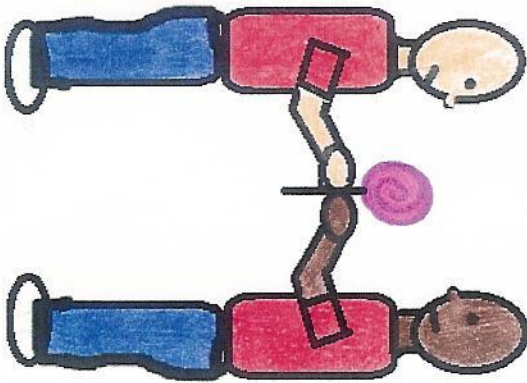
- Bennett, G. G., Merritt, M. M., Edwards, C. L., & Stollers, J. J. (2004). Perceived racism and affective responses to ambiguous interpersonal interactions among African American men. *American Behavioral Scientist, 47*, 7.
- Broudy, R., Rondolo, E., Coakley V., Brady, N., Cassells, A., Tobin, J. N., & Sweeney, M. (2006). Perceived ethnic discrimination in relation to daily moods and negative social interactions. *Journal of Behavioral Medicine, 30*, 31-43.
- Buhin , L. & Vera, E. M. (2009). Preventing racism and promoting social justice: Person-centered and environment-centered interventions. *Journal of Prevention, 30*, 43-59. doi: 10.1007/s10935-008-0161-9.

- Clark, K. B. & Clark M. K.(1947). Racial identification and preference in Negro children. In T. Newcomb & E. Hartley (Eds.), *Readings in social psychology*. New York
- Coker T. R., Elliot M. N., Kanouse D. E., Gunbaum J., Schwebel D.C., Gilliland M. N., Tortolero S. R., Peskin M. F., & Schuster M.A. (2009). Perceived racial/ethnic discrimination among fifth-grade students and its association with health. *American Journal of Public Health, 99*, 878-885.
- Flanagan C.A., Syvertsen A. K., Gill S., Gallay L. S., & Cumsille P. (2009). Ethnic awareness, prejudice, and civic commitments in four ethnic groups of American adolescents. *Journal of Youth Adolescence, 38*,500-518. doi:10.1007/s10964-009-9394-z
- Jordan, P. E. & Hernandez-Reif, M. (2009). Re-examination of young children's racial attitudes and skin tone preferences. *Journal of Black Psychology, 35*, 388-394
- Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of Health & Social Behavior, 40*, 208-230.
- Landrine, H. & Klonoff, E. A. (1996). The schedule of racist events: A measure of racial discrimination and a study of its negative physical and mental health consequences. *Journal of Black Psychology, 22*, 144-168.
- Marino, T. L., Negy, C., Hammons, M. E., McKinney, C., & ,Asberg K. (2007). Perceptions of ambiguously unpleasant interracial interactions: A structural equation modeling approach. *The Journal of Psychology, 141*, 637-63.
- Nesdale, D. (1999). Social identity and ethnic prejudice in children. In P. Martin & W. Noble (Eds.), *Psychology and society*. Brisbane: Australian Academic Press.
- Pachter, L. M., Bernstien, B.A., Szalacha, L.A., & Coll, C. G. (2010). Perceived racism and discrimination in children and youths: An exploratory study. *Health and Social Work, 35*, 61-70.

Appendix A



Appendix B



Appendix C
Jessica Roesslein
6 Beaufort Ct.
Saint Charles, MO 63301
Jrr626@lindenwood.lionmail.edu

September 14, 2010

XXX
Superintendent
XXX School District
Address

Dear XXX,

I am contacting you in regards to recruiting elementary school students from the XXX School District for participation in my study entitled, "Perceived Racial Expectations of Children." The purpose of this study is to identify any slight preferences and biases that children may have toward children with a different skin color.

I am an undergraduate student at Lindenwood University and currently conducting an undergraduate research under the supervision of Dr. Michiko Nohara- LeClair. I have completed two courses in research design, which stress the importance of ethical research. I also have completed the online human ethics training from the National Institutes of Health (certificate number: 505784) and have cleared a background check (8/24/2010). In addition, I am currently enrolled in two education courses and am set to begin my classroom observations within the Francis Howell School District starting DATE (use same format as date up above).

Enclosed you will find several documents;

- A detailed description of the study to be conducted
- A copy of the parental consent form
- A letter to the principal and consent form
- The Lindenwood University Institutional Review Board disposition letter
- A copy of my background check
- A copy of my online ethics training certificate
- A copy of both drawings to be used in the study

Thank you so much for taking the time to review my study and consider allowing it to take place at your institution. If you have any questions regarding my study please feel free to contact me via email at jrr626@lionmail.lindenwood.edu or contact my research supervisor at mnohara-leclair@lindenwood.edu.

Sincerely,
Jessica Roesslein

Appendix D

Invitation to Participate in a Study of Perceived Racial Expectations of Children

Description of the Study:

Your child is being invited to participate in a study about racial expectations they may have involving everyday situations. The goal of this study is to learn what slight preferences children might have with respect to different races in the context of everyday life. Please read this form and ask any questions you may have before you agree to your child being in the study.

If you decide to let your child take part in this study he/she will be asked to look at a scene with various children of different races at play with one another. In this picture there will be ambiguous situations such as a child passing candy to one another. Your child will be asked to tell the researcher what is happening in the picture and your child's responses will be recorded with paper and pencil. This will take about 15 minutes.

Risks and Benefits of Being in the Study:

Though there does not appear to be any risks or discomforts to your child the researcher will let the child know that he/she may withdraw for the study at anytime without any penalties.

Your child may benefit from the curiosity of the experiment process and the feeling of being involved.

Confidentiality:

I will protect your child's confidentiality by coding his/her information with a number so no one can trace the answers to his/her name. All the findings will be combined and no identifying information will be used. All the information from the study will be kept confidential and shredded after 1 year.

Voluntary Nature of the Study:

Your decision to allow your child to take part in the study is voluntary. Your child is free to choose not to take part in the study or to stop taking part at any time without any penalty.

Contacts and Questions:

If you have questions or concerns you may contact the researcher or Faculty Supervisor at the contact information listed below.

Researcher:

Jessica Roesslein

(314)-712-1069

Jrr626@lionmail.lindenwood.edu

Supervisor:

Dr. Michiko Nohara-LeClair

(636)-949-4371

mnohara-leclair@lindenwood.edu

Statement of Consent:

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree allow my child _____ to participate in this study.

Print your child's name

Print Parent/Guardian Name

Signature of Parent or Guardian

Date

Date

Name of Director/Principal

Name of School

Address of School

My name is Jessica Roesslein and I am currently conducting undergraduate research through Lindenwood University under the supervision of Dr. Michiko Nohara-LeClair. I am writing this letter to obtain permission to recruit children from Becky David Elementary School for participation in my study.

This study has already been approved by the Lindenwood University Institutional Review Board in February, 2010 (LU IRB # 10-57, see disposition form attached) and an application for renewal is currently being reviewed. In addition to IRB approval, I have also taken other measures to ensure the safety and ethical treatment of your students. I have completed two courses in research design at Lindenwood University, which stress the importance of ethical research. I have also completed the online human ethics training from the National Institutes of Health (9/4/2010, Certification Number: 505784) and have cleared a background check which has been filed with the Missouri Department of Health and Senior Services Family Care Safety Registry (see attached copy). I have also completed a pilot study with children from another area school this spring.

The goal of this study is to learn whether children demonstrate subtle preferences towards one race or another in the context of everyday life. The participants will be tested individually and be asked to look at a scene with children of different skin color at play with one another. In this picture there will be ambiguous situations such as a child passing candy to one another. The participant will then be asked to tell me what is happening in the picture. The participants response will be coded as containing a prosocial behavior (such as one child sharing his candy with the other) or a conflict (the children are bickering over whose candy it is). A follow-up question will be asked to determine which child in the picture is perceived as being responsible for the behavior (for example, who is the one sharing with whom). The participant's responses will be recorded by paper and pencil and no audio or video recordings will be used to ensure anonymity and confidentiality.

The entire session with each participant will take about 15 minutes. The participants who choose to participate must turn in a signed parental consent form that I will supply and express assent to being included in the study by verbally assenting to participation in front of an adult witness, such as a teacher. If at anytime they choose not to continue they can stop and return to class without prejudice or penalty. Although I do not anticipate any major risks to the participants, if they appear uncomfortable at anytime during the study I will reassure them that they do not have to participate. If you have questions or concerns you may contact the researcher or Faculty Supervisor at the contact information listed below. Thank you so much for your time!

Principle Investigator

Jessica Roesslein

(314)-712-1069

Jrr626@lionmail.lindenwood.edu

Faculty Supervisor:

Michiko Nohara-LeClair, Ph.D.

Professor of Psychology

Lindenwood University

209 S. Kingshighway

Saint Charles, MO 63301

(636)-949-4371
Mnohara-leclair@lindenwood.edu

Please fill in the following if you consent to having Jessica Roesslein work at Becky-David Elementry School.

Statement of Consent:

I _____ (print name) understand the procedures described above. My questions have been answered to my satisfaction, and I agree allow this study to take place at my facility, Becky-David Elementry School on XXX

Signature

Date: _____

Appendix F

11-25

IRB Project Number

**Lindenwood University
Institutional Review Board Disposition Report**

To: Ms. Jessica Roesslein

CC: Dr. Nohara-LeClair

The IRB has reviewed your abbreviated application for the continuation of your research and it has been approved.

Ricardo Delgado
9/29/2010

Institutional Review Board Chair

Date

Appendix G



Missouri Department of Health and Senior Services

P.O. Box 570, Jefferson City, MO 65102-0570 Phone: 573-751-6400 FAX: 573-751-6010
 RELAY MISSOURI for Hearing and Speech Impaired 1-800-735-2966 VOICE 1-800-735-2466



Jeremiah W. (Jay) Nixon
 Governor

8/24/2010

FAMILY CARE SAFETY REGISTRY

Background Screening Result

Registrant ROESSLEIN, JESSICA ROSEANNE

Registrant No. 62925531

JESSICA ROESSLEIN
 ATTN - JESSICA ROESSLEIN
 6 BEAUFORT CT
 ST CHARLES MO 63301

The Family Care Safety Registry (FCSR) received your request on 08/24/2010 for a background screening. The background screening 1971103009 performed on 08/24/2010 indicated the following:

No finding reported in the background screening.

The FCSR background screening accesses information from the following agencies:

- Criminal history information on file with the MO State Highway Patrol
- Sex Offender Registry information on file with the MO State Highway Patrol
- Child abuse/neglect information on file with the MO Dept. of Social Services
- Foster parent license denial, revocation or suspension information on file with the MO Dept. of Social Services
- Employee Disqualification List information on file with the MO Dept. of Health and Senior Services
- Employee Disqualification Registry information on file with the MO Dept. of Mental Health
- Child Care license revocations on file with the MO Dept. of Health and Senior Services

A copy of this background screening has been provided to the individual. If results were indicated, you may obtain specific information about these results by contacting the FCSR toll-free, 1-866-422-6872, or by submitting your request in writing to the Missouri Department of Health and Senior Services, Family Care Safety Registry, P.O. Box 570, Jefferson City, MO 65102. The request must include your name, address, telephone number and the reason for requesting the information and must include registrant's full name, social security number and background screening number shown above.

The FCSR provides background screening information for employment purposes only. Anyone misusing information provided by the FCSR is guilty of a class B misdemeanor. The FCSR bases criminal history identification on the name, social security number and date of birth you provided, not the use of fingerprints. Please be advised that you need to contact your licensing representative or other agency contact to determine whether this background screening meets the requirements for licensure, certification or registration by state agencies.

If you have any questions or need assistance you may contact the FCSR toll free at 866-422-6872.



www.dhss.state.mo.us

The Missouri Department of Health and Senior Services protects and promotes quality of life and health for all Missourians by developing and implementing programs and systems that provide: information and education, effective regulation and oversight, quality services, and surveillance of diseases and conditions.

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER: Services provided on a nondiscriminatory basis.

Appendix H



Appendix I

Parents:

Thank you for allowing your child to participate in the study “Perceived Racial Expectations of Children”. The purpose of this study was to identify if any racial prejudices exist in children. If prejudice is identified, this will open the door to future research on how to prevent it. Keep in mind that all of the information in this study was combined and that no identifying information will be used.

If you are interested in the aggregate of this study it will be made available for you to look at after the completion of the study upon your request. If you have any questions or concerns please contact me at the information listed below.

Thank you!

Jessica Roesslein

(314)-712-1069

Jrr626@lionmail.lindenwood.edu

Appendix J

Dear _____ :

Thank you for allowing me to take time out of your schedule to invite willing students with parent permission to take part in my study. Your students are being asked to participate in a study about racial expectations they may have involving everyday situations. The goal of this study is to learn what slight preferences children might have to their own race or other races in the context of everyday life.

Your students will be pulled out of class individually for about 15 minutes each and be asked to look at a scene with various children of different races at play with one another. In this picture there will be ambiguous situations such as a child passing candy to one another. Your students will be asked to tell me what is happening in the picture and his/her responses will be recorded with paper and pencil.

If you are interested in the aggregate of this study it will be made available for you to look at after the completion of the study upon your request. If you have any questions or concerns please contact me at the information listed below.

Thank you!

Jessica Roesslein

(314)-712-1069

Jrr626@lionmail.lindenwood.edu