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## **The Effects of Priming on Self-Esteem with an Emphasis on Extroversion**

**Jamie A. Zagar and Danielle C. Merli**

*This experiment looked at priming on self-esteem. We were also interested in the differences between extroverts and introverts in relation to priming on self-esteem. A priming message with a graphic was used on the experimental group, while only the graphic (same image) was used for the control group. We measured extroversion between the two groups to look for differences within and between the group conditions, in relation to self-esteem. Participants in the experimental group were expected to have a higher self-esteem. A significant difference was found. The priming condition showed that participants had a higher self-esteem. However, a relationship between extroverts in the experimental group and self-esteem was not found.*

The researchers of the current study focused on priming, self-esteem, and extroverted personalities. We investigated the power of priming on self-esteem. The differences between extroverts and introverts with priming and self-esteem were also explored. We evaluated two separate conditions, the experimental group and the control group. We believed that there would be differences between the experimental group and the control group. A graphic with a priming message was used on the experimental group, while only the graphic was used for the control group. We measured extroversion between the two groups to look for differences within and between the group conditions, in relation to self-esteem. The researchers reviewed several articles on self-esteem, priming, and extroversion.

To explore the effects of priming on self-esteem, one must have understood the construct of self-esteem. Oakes, Brown, and Cai (2008) incorporated two viewpoints to establish the

definition of self-esteem. First, Oakes et al. referred to Brown and Marshall's (2006) definition that emphasized that self-esteem was the affective view an individual felt about himself or herself. Other theorists found that cognition played a more important part to evaluating one's value of himself or herself (Crocker & Wolfe as cited in Oakes et al.). Integrating both views helped describe self-esteem. Self-esteem used the ability of cognition to reflect one's thoughts about oneself. To further the understanding of self-esteem, Tafarodi and Ho (2006) related self-esteem to an individual's reflective and automatic judgment on his or her worth. Identifying one's own understanding was based on past situations. People judged themselves based off their own memory, in terms of feelings, behaviors, perceptions, and even intentions (Tafarodi & Ho). According to Tafarodi and Ho, the past situations affected one's memory of his or her feelings, observations, objectives, behavior, etc.

The measurement of self-esteem currently shifted from direct questioning of how individuals thought about themselves to indirectly associating themselves to optimistic or pessimistic stimuli (Oakes, Brown, & Cai, 2008). Self-esteem was able to be measured explicitly or implicitly. Explicitly measured self-esteem was defined by Tafarodi and Ho (2006) as one's awareness of judging oneself from memory. Using explicit measures to evaluate self-esteem was direct and instantaneous. With explicit measures, respondents were typically given the option of agreeing with positively or negatively attributed statements (Tafarodi & Ho). Tafarodi and Ho described implicitly measured self-esteem as an unconscious evaluation of one's attitude and self. The implicit self-esteem occurred outside of one's awareness.

In the current study, we used an explicitly measured self-esteem instrument. The most popular scales of explicitly measured self-esteem were the Feelings of Inadequacy Scale (Janis &

Field, 1959), Self-Esteem Inventory (Coopersmith, 1967), and Self-Esteem Scale (Rosenberg, 1965) (as cited in Tafarodi & Ho). The Rosenberg Self-Esteem Scale (1989), the revised edition, was used in the present study. The intention of the Rosenberg Self-Esteem Scale was to measure the self-worth of adolescents (Rosenberg as cited in Furnham & Cheng, 2000).

A study conducted by Pritchard, Wilson, and Yamnitz (2007) attempted to determine whether law and medical students faced major stress during their first year at college. They hypothesized that undergraduate freshmen would have experienced stress from the transition of high school into college life. The participants consisted of 242 undergraduate freshmen at the beginning and end of their first year. They were questioned over a series of topics such as physical health, alcohol use, stress level, perfectionism, self-esteem, optimism, extroversion, and psychological adaptation to college (Pritchard et al.). There was a decline in psychological and physical health for medical and law students. Poorer physical health was due to negative coping tactics. Low self-esteem helped predict the abuse of alcohol. Both optimism and self-esteem showed better outcomes physically and psychologically. Extroverts appeared happier and healthier than introverts (Cohen as cited in Pritchard et al.). However, the results of the study by Pritchard et al. established that extroverts were more depressed than introverts. The Rosenberg Self-Esteem Scale showed to be both reliable and valid during the experiment. The results concluded that participants with a low self-esteem initially had more physical health problems. There was also a relationship between low self-esteem and increased negative moods (Pritchard, et al.). As stated previously, we also used the Rosenberg Self-Esteem Scale in our study.

Melnick, Conture, and Ohde (2003) studied whether phonological priming through picture naming affected children who stuttered. Speech reaction time was measured of the 36

children (18 who did stutter and 18 who did not stutter). The computer presented “white-on-black line” drawings, and the participants were asked to name the objects fast as they were able (Melnick et al.). There were three conditions in the study: no prime, related prime, and unrelated prime. All children participated in each condition. The no prime condition presented a picture while the children answered as quickly as they could. The related prime condition and the unrelated prime condition had the children look at the same picture, as the first condition. However, there was an auditory prime just before the picture was presented in both of these groups. Both groups received a different priming word. Those that received the auditory prime related to the picture were in the related prime group, while those who received an auditory prime unrelated to the picture were in the unrelated prime group (Melnick et al.). During the related condition, results showed shorter speech reaction times compared with those in the no prime condition.

Anderson and Conture (2004) investigated stuttering in young children. They investigated whether priming helped children to stop stuttering with the effect of sentence-structure. There were 32 participants in the study (half who stuttered and the other half who did not). Speech, language, and hearing development were within standard limits for all the participants who did not stutter. The participants were asked to watch and explain the “black-on-white” drawing on the computer screen that illustrated children, adults, and animals. The presence of the priming sentences were of drawings expressing different activities that were easily depicted (e.g. the girl is hugging the cat). The two conditions were no-prime and syntactic-prime. The syntactic-prime gave an auditory priming sentence; however, the auditory

sentence was not related to the actual picture (Anderson & Conture). The researchers measured speech reaction time from the onset of the drawing to the onset of the participant's vocal reply.

The media (e.g. newspaper, radio, and television) has had numerous sources of information for political views and political recruitment. Moy, Xenos, and Hess (2005) were interested in whether infotainment media could influence American's views during the 2000 presidential campaign. The modern term infotainment was defined as information about entertainment (Moy et al.). Infotainment media investigated late-night-comedy shows. Priming was used to detect whether a viewer's judgment of the presidential candidates who appeared on the television shows would have influenced his or her vote. The National Annenberg Election Survey surveyed 11,482 respondents about their perception on their views and beliefs about the candidates and even their character traits. After appearing on *The Late Show with David Letterman* (Burnett, 2000), George W. Bush's character traits were evaluated more positively by viewers than by non-viewers. The participants were asked to rate G. W. Bush and Al Gore. Respondents evaluated Bush more highly than Gore. Participants rated Bush as more honest, inspiring, and a leader, while Gore was rated more knowledgeable and caring. Demographics, issue evaluations, character evaluation, and late-night comedy viewing showed there were higher ratings for Bush, and these results showed a positive correlation because he just recently appeared on David Letterman's show just before the election (Moy et al). Between pre and post appearances on the television show, there was a statistically significant 3-way interaction, which was between caring, late-night comedy exposure, and a time variable-caring. According to Moy et al., American viewers were persuaded by the priming effects of infotainment.

The present study investigated priming on self-esteem. In particular, the researchers used two posters with the same graphic image, one with text and the other without text. The poster with the text was used in the priming condition. The first hypothesis of the researchers was the belief that participants in the experimental (priming) group would have higher self-esteem than participants in the control group. The researchers also hypothesized that extroverts in the experimental group would have been most affected by the poster with text. The extroverts with the experimental poster condition would have had the highest self-esteem out every condition.

To take hold of the effects of priming, we reviewed journal articles dealing with stimuli influencing a particular response. Moy et al. (2005) demonstrated that the media helped influence or prime its viewers to make a direct decision on voting for which candidate to be elected for president. The goal of priming was the need to influence a response without a person's recognition of what it was that influenced him or her. For example, the current study investigated whether a motivational poster influenced one's response in a self-esteem inventory. By utilizing priming, we did not make it known during the experiment that the poster was a part of the experiment because participants were expected to notice the poster on their own.

## Method

### *Participants*

One-hundred and twenty-four university students signed up and volunteered to take part in this study. These students were recruited from Lindenwood University's Human Subject Pool. The sign-up sheet was located on the Human Subject Pool Bulletin Board, which was located on the fourth floor in Young Hall. There was no monetary compensation granted; however, extra credit points were given as compensation to the participants who were students

from one of the following five classes: Basic Concepts of Sociology, The Family, Cultural Anthropology, and Principles of Psychology, and Interactive Psychology.

Only 118 out of 124 participants were included in the study. Five participants' data were excluded from the study because of vision problems because they were physically unable to see the poster. One participant failed to fill out the third survey. Demographic information from the third survey was evaluated by the researchers using SPSS 16.0. There were 49 male participants and 69 female participants. Participants were also categorized by class year in college. The results showed that there were 58 freshmen, 23 sophomores, 15 juniors, 21 seniors, and 1 unknown classman. The age range was between 18 and 44 years. The mean average age was 20.08 years, with a standard deviation of 2.851. Over 75% of participants were from the United States. Roughly five percent of participants were from India. There were a total of 22 countries from which participants stated they were from. The countries ranged from Argentina, the Bahamas, Columbia, Germany, Pakistan, and Venezuela. Seventy-eight percent of participants stated that English was their first (native) language. The second most frequent language was Spanish, with over seven percent of the sample speaking it as their first language. Hindi was the third most frequent first language, and it was spoken by a little over four percent of participants.

### *Materials*

The study used two posters of the same graphical image. One poster had a motivational message about the concept of confidence on it. The second poster did not have any wording on it (see Appendix A). Both posters were found on the same internet website at [http://www.zazzle.com/motivational\\_ladybug\\_confidence\\_poster-228992254619523585](http://www.zazzle.com/motivational_ladybug_confidence_poster-228992254619523585). In addition to the posters, three surveys were used as the basis of the study. The first survey



*Rosenberg Self-Esteem Scale* was standardized (Rosenberg, 1989 as cited in University of Maryland) (see Appendix B). The second survey was the standardized *A Trait Questionnaire* (Wilson, 1978 as cited in McAdams, 2005) (see Appendix C). The third survey was not a standardized survey (see Appendix D). We generated our own demographic survey to use in our experiment.

Additional materials used in the study included pens to record information and provided for the participants to use on the inventories and necessary paperwork. The necessary paperwork consisted of a two informed consent forms (see Appendix E), the experimenter's list of participants, a feedback letter (see Appendix F), and a receipt showing proof of the participant that took part in the study. A desk and several chairs were provided for both the experimenters and participants. Sticky tack and a tape measure were used to place the appropriate poster in the same position for every scheduled meeting.

### *Procedure*

The recruitment description and sign-up sheets were posted on the HSP bulletin board on the fourth floor of Young Hall. One to six participants were able to sign up for each scheduled time. Before participants arrived at the designated lab room, we placed the appropriate poster on the wall. The experiment tested participants in a group setting. When participants arrived for the experiment, they were given two informed consents forms to read and sign. We retained one copy of the informed consent form and gave the second copy to participants for their own records. Participants also signed the experimenter's list of participants form.

Each participant was given three surveys to fill out. The participants were asked to fill out the surveys in the arrangement that was given to them. The first survey that participants took

was the standardized *Rosenberg Self-Esteem Scale* (Rosenberg, 1989). The second survey used was the standardized *A Trait Questionnaire* (Wilson, 1978). The participants then responded to the demographic survey that the experimenters created.

The experimenters separated participants into two groups, the experimental group and the control group. While testing, each group of participants had a poster placed on the wall in front of their table. However, the experimental group received the independent variable, a poster that had a lady bug image and a motivational message about confidence. The control group received a poster that had the same lady bug image but without any text. Both posters were positioned at the exact location in the designated lab room with the use of the tape measure.

The poster conditions were alternated each day. The posters were also rotated for the beginning of each week day. For example, if the experimental poster was on the wall on Monday of the first week, it would have been put up on Tuesday the second week. The starting day for the control group would have corresponded on Tuesday the first week and Monday the second week.

After the three surveys were completed, we debriefed the participants about the poster condition in both the experimental and control situation. The participants were also debriefed about the true purpose of the experiment. After debriefing participants, we gave them a feedback letter that contained the purpose of the study and our contact information. Participants were encouraged to contact us if they had any questions or comments about the experiment.

Participants were also given the participant's receipt that both the experimenter and participant signed. The participant then took the receipt to the HSP office to receive extra credit points for one of the five lower level classes of Anthropology, Sociology, or Psychology. All

surveys were evaluated after all the participants in one day took the test. Results of individual surveys were not given to any participant.

After the surveys were evaluated, based on the participants' score on the *A Trait Questionnaire*, participants were also placed into either the extroverted or introverted group. These two conditions were two levels of the second independent variable, the quasi-independent variable of extroversion.

### Results

The first hypothesis that the experimenters were interested in was whether the experimental poster condition affected participants' self-esteem on the *Rosenberg Self-Esteem Scale* (1989). A one-tailed independent t-test was conducted between self-esteem scores and the experimental poster condition. A significant difference was found between both poster conditions in self-esteem scores. The results showed that  $t_{(116)} = 2.127, p = .036$ .

The second hypothesis examined whether extroverts with the confidence poster condition had higher self-esteem than introverts in the same condition. There was not a relationship between extroversion and self-esteem in the poster condition. The Pearson correlation revealed that  $r = -.027$ . However, a relationship was found between extroversion and self-esteem in the poster condition that did not have the motivational message (the control group). The Pearson correlation revealed that  $r = .380$ , a positive correlation. The researchers also looked at self-esteem scores and extroversion scores that included both poster conditions. A correlation was found between extroversion and self-esteem. The Pearson correlation showed a weak positive relation, where  $r = .189$ .

The experimenters were also interested in whether participants that thought they were extroverted differed from their scores on the extroversion scale. There was a significant difference in whether the participants thought of themselves as extroverted and their extroversion scores. The independent t-test's results showed  $t_{(116)} = -7.562, p < .001$ . An independent t-test was used to evaluate whether there were differences in self-esteem scores and whether participants thought they were extroverted. The results demonstrated that there was not a significant difference,  $t_{(116)} = -.642, p = .522$ . An independent t-test was also used to evaluate whether the self-esteem scores of both groups of participants differed by whether they thought they were affected by the poster. There was not a significant difference in scores. The independent t-test's results demonstrated  $t_{(116)} = .808, p = .523$ .

Additionally, differences in scores by sex, class year in college, and age in college were explored. There were not any significant differences in self-esteem scores between males and females. The independent t-test showed  $t_{(116)} = .173, p = .863$ . Extroversion was also examined between the sexes. The results did not show a significant difference between males and females. The independent t-test showed  $t_{(116)} = -.035, p = .972$ . A one-way ANOVA was used to look at class year in college on self-esteem. The results concluded that there was not a significant difference, where  $F_{(3, 113)} = 2.353, p = .076$ . In particular, the mean self-esteem scores were about the same (around 22) from freshman year through junior year. The senior level average of self-esteem was at 25. The Pearson correlation was also used to look at class year and self-esteem. It showed a very weak positive relationship, where  $r = .052$ . Finally, the researchers looked at the relationship between age and self-esteem. The results did not show a relationship. The Pearson correlation was  $r = -.060$ .

## Discussion

As stated previously, a significant difference was found in self-esteem scores between the experimental group and the control group. This difference supported the hypothesis that participants in the priming condition would have higher self-esteem than participants in the controlled condition. We were excited to find evidence to support our hypothesis. However, we also recognized that other influences, other than priming may have influenced the results. Participants in the experimental group may have had fewer distractions or fewer life stresses than participants in the control group. Additional variables and limitations were discussed later in this section.

Other interesting findings came from this study. A significant difference was found between whether participants thought of themselves as extroverted and their extroverted scores. Participants that thought they were extroverted may have been actual extroverts, which would have made the experimenters question the validity of the questionnaire. However, participants may not have been in tuned with how truly extroverted they actually were. The demographic survey question about whether participants thought they were extroverted was limited to either a closed response of only two choices-extrovert or introvert. If we would have put the response choice on a Likert scale, the scores of extroversion between what participants thought and their responses on the questionnaire may have been more similar.

A weak positive correlation was found between extroversion and self-esteem for both poster conditions. However, a more significant correlation was found between self-esteem and extroversion in the control group. It was interesting to note these results between self-esteem with the extroverts in the control group. Explaining the correlation between the control group

and self-esteem was difficult. The experimenters came up with three possible explanations. The first explanation was that participants may have found the lady bug image to be motivational without needing a motivational message. The second explanation looked at differences outside of the data evaluated in the study. Perhaps the extroverted participants in the control group had more similar characteristics that differed from the characteristics that the experimenters already gained from the demographic survey. A third explanation was that it was by chance (or random) that these extroverts in the control group ended up in the same condition; that perhaps, the posters had no effect on either group.

Limitations to the study included extraneous variables and confounding variables. The extraneous variable included noises from outside of the library room and outside the window. There was an instance where music was being played from a car outside. Music may have impacted the results of some participants. The sunshine that peaked through the windows varied between scheduled meetings. This may have made the room less comfortable by a glare on the paper, as well as a warmer temperature in the room. One confounding variable was determined as the poster size. We believed that a more significant difference between the poster conditions may have been found if the posters were slightly larger, where participants would have been able to notice the image and text. The second confounding variable was the eighth question on the third survey, the demographic survey, that asked if participants if they were able to read the poster. However, in the control group, the reading section of the question did not apply and may have confused participants. We explained to participants in the control group that the reading part of the question did not apply to them, and that we were only if they were able to visually see the poster without any problems.

We obtained a great significance between the two poster conditions with self-esteem. Because the results were significant, using priming to enhance self-esteem on a broader population, such as in education, at work, religious events, and sporting events, would have been beneficial to society. Using the concept of self-esteem would have motivated students, workers, and athletes to achieve their goals such as performing well and becoming a better person.

We were satisfied with the two standardized inventories that we used in their experiment. In the future, we would have used a larger image, with a larger font size. The poster would have used a little more color. More colors may have enticed participants to view the posters longer. The only colors on the current posters were black, red, grey, and white. For future research, we would have also tried a larger room to conduct the experiment to see whether the results would have been the same between a more natural classroom setting and the smaller setting we used. The obvious differences between the rooms would have been the size of the room and the amount of distractions. We may not have found a significance if the room was larger and full of more people. We believed that future research on classroom size and priming of self-esteem should be explored. Perhaps, the smaller the room, the higher self-esteem students would have had. In the future, we also would have looked more thoroughly into the effect of priming on self-esteem with other populations, such as children in grade schools and adults at work.

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#### Author Note

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## Appendix A

**Figure 1**Description:

We were unable to make the poster image any bigger without distorting the image. In Figure 1, the 13 X 11 poster displays the word *confidence* in all caps and in red font. The quote that follows *confidence* is “No matter how small I might feel, there is something or somebody who sees me as colorful.” We will be using two posters in our project. Both posters will show the same image. However, the poster for the control group will not include any wording (see Figure 2). The motivational message will be cut off of the poster, as seen in Figure 2.

([http://www.zazzle.com/motivational\\_ladybug\\_confidence\\_poster-228992254619523585](http://www.zazzle.com/motivational_ladybug_confidence_poster-228992254619523585))

**Figure 2**

## Appendix B

**Rosenberg Self-Esteem Scale (1989)**

<b><u>Statement</u></b>	<b><u>Strongly</u></b>		<b><u>Strongly</u></b>	
	<b><u>Agree</u></b>	<b><u>Agree</u></b>	<b><u>Disagree</u></b>	<b><u>Disagree</u></b>
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 am 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.				

## Appendix C

**A Trait Questionnaire (Wilson, 1978)**

*For each of the following 20 questions, answer either yes (if it is generally true for you) or no (if it is generally not true for you).*

- |   |     |    |
|---|-----|----|
| 1. Do you often long for excitement?  | YES | NO |
| 2. Are you usually carefree?  | YES | NO |
| 3. Do you stop and think things over before doing anything?   | YES | NO |
| 4. Would you do almost anything for a dare?   | YES | NO |
| 5. Do you often do things on the spur of the moment?  | YES | NO |
| 6. Generally, do you prefer reading to meeting people?  | YES | NO |
| 7. Do you prefer to have few but special friends?   | YES | NO |
| 8. When people shout at you, do you shout back?   | YES | NO |
| 9. Do other people think of you as very lively?   | YES | NO |
| 10. Are you mostly quiet when you are with people?  | YES | NO |
| 11. If there is something you want to know about, would you rather<br>look it up in a book than talk to someone about it? | YES | NO |
| 12. Do you like the kind of work that you need to pay<br>close attention to?  | YES | NO |
| 13. Do you hate being with a crowd of people<br>who play jokes on one another?  | YES | NO |
| 14. Do you like doing things in which you have to act quickly?  | YES | NO |
| 15. Are you slow and unhurried in the way you move?   | YES | NO |

- |  |     |    |
|--|-----|----|
| 16. Do you like talking to people so much that<br>you never miss a chance to talk to a stranger? | YES | NO |
| 17. Would you be unhappy if you could not<br>see lots of people most of the time?                | YES | NO |
| 18. Do you find it hard to enjoy yourself at a lively party?                                     | YES | NO |
| 19. Would you say that you are fairly self-confident?  | YES | NO |
| 20. Do you like playing pranks on others?  | YES | NO |

Appendix D

**QUESTIONNAIRE**

**SUBJECT ID NUMBER:** \_\_\_\_\_ (**Assigned by Researcher**)

- 1) Sex: MALE FEMALE?
- 2) Year in college:
- a. FRESHMAN SOPHOMORE JUNIOR  
SENIOR OTHER
- 3) Age: \_\_\_\_\_ years.
- 4) What country are you from?: \_\_\_\_\_
- 5) What is your first (native) language?: \_\_\_\_\_
- 6) Do you consider yourself introverted or extroverted?
- a. **-Introverted** **-Extroverted**
- b. \*shy, withdrawn, reserved, quiet \* outgoing, social, friendly, gregarious
- 7) Did you notice the poster in front of you before **this last survey** (behind the experimenters)?: YES NO
- 8) Can you visually see and read the poster in front of you? YES NO
- 9) Do you feel that the poster affected you in anyway? YES NO
- a. If YES, please explain:

## Appendix E

**Informed Consent Form**

I, \_\_\_\_\_ (print name), understand that I will be taking part in a research project that requires me to complete three questionnaires asking about in my personality. To the best of my knowledge, I do not have any anxieties or opposition taking a personality survey by answering personal questions about my personality or self-concept. 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 HSP office, a completed parental consent form that allows me to give consent as a minor.

\_\_\_\_\_  
 (Signature of participant) Date: \_\_\_\_\_

\_\_\_\_\_  
 (Signature of researcher obtaining consent) Date: \_\_\_\_\_

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## Appendix F

### Feedback Letter

Thank you for participating in our study. The questionnaire was used in order to determine whether the independent variable of a poster about confidence would influence the scores on the self-esteem survey. A personality test was given to determine whether participants were extroverted or introverted. We predicted that Participants who received the independent variable (confidence poster) would score higher on the self-esteem survey. We also hypothesized those participants who scored more extroverted than introverted on the personality test will score higher on the self-esteem survey, regardless of having the confidence poster in the room.

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,

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