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Hayley Van Gelder
College of Saint Benedict/Saint John's University

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Hayley Van Gelder

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BIRDS OF A FEATHER: THE EFFECT OF NEGATIVELY AND POSITIVELY VALENCED SIMILARITIES ON COMPLIANCE

Approved by:

Dr. Pamela Bacon

Associate Professor of Psychology

Dr. Richard Wielkiewicz

Professor of Psychology

Dr. Benjamin Faber

Assistant Professor of Psychology

Dr. Rodger Narloch

Chair, Department of Psychology

Dr. Anthony Cunningham

Director, Honors Thesis Program

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Hayley Van Gelder

College of Saint Benedict

Abstract

Previous research has shown that individuals have a tendency to prefer things and people related to themselves. I conducted a lab experiment to replicate previous findings in that individuals who believed they shared a similarity with someone would be more likely to comply with a request from that person, as well as show more feelings of liking towards that person. Additionally, the study sought to investigate if sharing a positively-valenced or negatively-valenced similarity with the requestor would affect the likelihood of individuals to comply with the request and the amount of liking felt towards the requestor. Although the manipulations of similarity and valence were found to be successful, no hypothesized differences in rates of compliance or liking were found.

Birds of a Feather: The Effect of Negatively and Positively Valenced Similarities on Compliance

As the old saying goes, "birds of a feather flock together." Evidence for this statement can be found in our daily personal lives; we tend to surround ourselves with others who share similar beliefs, interests, and personalities. We like people who are like us. In a study by Burger, Messian, Patel, del Prado, and Anderson (2004), participants who believed they shared an incidental similarity with another individual (e.g. a birthdate, fingerprint type, first name) reported higher levels of attraction (liking) for that person than participants who did not believe that they shared such a similarity with the individual. Individuals also agreed more with an aggressively-written persuasive essay and believed that the essay was not as coercive or threatening when the individuals were led to believe that they shared a birthdate and first name with the author of the essay, compared to individuals who did not believe they shared a birthdate or first name (Silvia, 2005). Those individuals who believed that they shared a similarity with the author also tended to believe more strongly that the author shared similar personal values with themselves, compared to individuals who did not believe they had a similarity with the author. Even sharing a similar object, such as a watch, led people to linger near a confederate longer on a street corner than people who did not believe they had the same watch (Guéguen, Martin, & Meineri, 2011). Similarities, even ones that are simply by coincidence, seem to increase the amount of liking we feel for others.

This tendency for similarity to increase the degree of liking also appears when the similarities are more personal. In a study by Insko and Wilson (1977), participants who perceived sharing similar personalities with another individual tended to rate this individual higher on a likability scale, compared to those participants who perceived sharing dissimilar personalities with the other individual. The tendency was further supported by a study by Burger,

Soroka, Gonzago, Murphy, and Somervell (2001), in which some of the participants believed that another individual had picked mostly the same adjectives to describe herself. These participants tended to rate the individual higher than participants who believed that the individual had picked different self-describing traits.

Implicit egotism is the tendency to prefer things that are connected to the self, since most people have positive feelings about themselves (Pelham, Mirenberg, & Jones, 2002). Neither the magnitude nor the pertinence of the connection between these things and the self seem to matter when it comes to the strength of the preference. In one study on this phenomenon, individuals were shown to be significantly more attracted to people whose last names shared letters with their own, as well as people whose meaningless experimental code numbers were associated with their birthday numbers (Jones, Pelham, Carvallo, & Mirenberg, 2004). The tendency not only affects seemingly subjective and fickle attractions, but also major life decisions, such as city of residence, spouse, and career (Pelham et al., 2002; Simonsohn, 2011).

When a seemingly non-logical and temporary sense of attraction occurs with a stranger who shares a unique similarity with us, it is known as a unit relationship (Heider, 1958). The unit relationship is formed when two individuals perceive an association between themselves due to a similarity that is unique to the pair with respect to their situation (two people from Hawaii would form a unit relationship if they stumbled upon one another at a bar in Bangladesh, but might not feel the same association if they met at a bar in Hawaii). This type of unit relationship formation and subsequent increase in liking were supported in a study by Insko and Wilson (1977). Participants who had the opportunity to discover personal similarities with each other by means of a brief chat—thereby developing a unit relationship—liked their discussion partner significantly more than another individual who had been in the same room, but had not

participated in the discussion. People also tend to perceive their unit relationship partner's more undesirable aspects more favorably, even if they discover the similarity after learning of the undesirable aspects, as was illustrated in a study by Finch and Cialdini (1989). In their study, participants tended to rate the infamous Rasputin ("the Mad Monk of Russia") more positively on somewhat ambiguous qualities when they believed that they shared a birthdate with the notorious historical figure than those who believed their dates of birth differed.

The uncommonness of the similarity between two people influences the extent to which individuals are attracted to each other. In Arkin and Burger's study (1980), participants who perceived a future exclusive interaction with another individual rated that partner as more likable than future partners who had been interacting with others already, without the participants even seeing or speaking to this imaginary partner. Just knowing that the imaginary partner was only going to interact with the participant, and no other individuals, seemed to make the interaction more unique to the participant, and therefore the exclusive partner was deemed more desirable than the shared partner. This trend was also supported in a later study by Burger et al. (2004), in which participants who shared a rare fingerprint type with a confederate reported feeling higher levels of attraction to the confederate, compared to participants who shared a common fingerprint type with a confederate.

Not only does similarity lead to attraction, but it also leads to compliance with requests from the unit relationship partner. In a study by Guéguen et al. (2005), participants complied more often and more quickly to a request for completing an online survey sent via e-mail from a solicitor of the same surname than of a differing surname. Participants who believed that they had chosen many of the same adjectives to describe themselves as a confederate were also more likely to agree to write a page of feedback about an essay written by the confederate than

participants who thought that the requesting confederate had chosen only a handful or very few of the same self-describing adjectives (Burger et al., 2001). Burger et al. (2004) found that participants were more likely to comply with the same request for written feedback about an essay when an incidental similarity was present than not, and they were even more likely to comply when that similarity was perceived as rare than as common.

An exchange relationship is the type of relationship we have with business associates, clerks, and strangers, in which the goal of the relationship is clear (e.g. to purchase an item, to perform a service) and the recognition of personal needs is not expected (Clark, Oullette, Powell, & Milberg, 1987). Most people would become uncomfortable or perhaps even peeved if the employee at the drive-through counter began telling them all about his recent courtship failure. If the employee was a friend or acquaintance, however, listening to and commenting on his personal life would be an obligatory behavior in maintaining the relationship. This would then be what is called a communal relationship, a broad category of friendship in which the act of recognizing each other's needs is expected (Clark et al., 1987). Participants in a study by Williamson and Clark (1992) felt better after helping their partner if they were in a communal relationship than if they were in an exchange relationship. One of the reasons presented for the tendency to comply with requests from unit relationship partners is that individuals involved in the unit relationship perceive themselves as being involved in a communal relationship (Burger et al., 2001; Williamson & Clark, 1992). If this is assumed, then it would follow that individuals who share a similarity—a situation which leads to developing a unit relationship—should perceive their relationship as a communal relationship. This further supports and explains the tendency for increased compliance with requests from unit relationship partners. Along these lines, Burger and his colleagues (2001) suggest that being involved in a unit relationship may

trigger the sort of heuristic processing in which we engage when dealing with a friend, as opposed to a stranger. If we hear the same request from a friend and from a stranger, we are more likely to automatically comply with the friend, with little thought, because our brains have labeled the individual as someone we say "yes" to (Burger et al., 2001).

The current study seeks to further the research on similarity and compliance in a way that has not yet been explored. Past studies have used incidental and self-reported personality similarities to encourage fostering a unit relationship between participants and their partners, but no research has focused on the valence of the similarity. Valence, in the psychological sense, can be defined as "the level of pleasantness that is generated when a stimulus is encoded" (Gomes, Brainerd, and Stein, 2012, p. 663) which can range from very positive to very negative. What if the similarity the unit relationship pair shared was perceived as something negative? Finch and Cialdini's Rasputin study (1989) suggests that a negatively-viewed *partner* does not diminish the attraction that comes from a similarity-induced unit relationship, but this is not equivalent to the effects that a negatively-viewed *similarity* may have on that attraction. With support from a number of studies, however, Cialdini has also suggested that individuals often tend to distance themselves from undesirable connections (Cialdini & de Nicholas, 1989; Cialdini, Finch, & de Nicholas, 1989). This tendency, known as Cutting Off Reflected Failure (CORFing) is illustrated in the tendency for sports enthusiasts to use the pronoun "they" in describing an undesirable match outcome ("they lost") as opposed to "we" as in "we won" (Snyder, Lassegard, & Ford, 1986). To maintain a positive image, we often use CORFing to separate ourselves from an image-threatening event or individual. With this in mind, would the fact that two individuals still share a similarity, albeit a possibly image-threating similarity, create a feeling of attraction that is associated with the unit relationship? Or would the partner's association with something

undesirable cause the participant to employ the CORF tactic, avoiding a relationship with the partner?

In order to test my hypotheses, I conducted an experiment manipulating whether or not a valenced similarity was shared by a participant and a confederate. This study focused on both negative and positive similarities, comparing participants with a negative trait similarity with participants who simply have a negative trait, and the same for a positive trait. This was to avoid confounds which would naturally emerge when comparing those told they have a negative trait and those told they have a positive trait. Individuals receiving positive feedback may simply be in a better mood or feel more positive priming effects than those receiving negative feedback when presented with a request for their compliance, regardless of whether they shared a similarity with the confederate or not. In order to eliminate this possible explanation, the present study employed a 2 x 2 factorial design, thereby controlling whether or not the feedback is shared by both the participant and the confederate and whether the feedback is positively or negatively valenced. Techniques for the presentation and measure of compliance were adopted from earlier studies. The trait I used to create the conditions was the level of emotional aggression, due to its definitional ambiguity, as well as its polarity in terms of desirability: high emotional aggression is undesirable and low emotional aggression is desirable. I only asked women to serve as participants in this study to eliminate a number of possible confounds. There may have been some amount of gender role stereotyping if male participants were also used. Aggression is often seen as an expected trait for men, so scoring high on emotional aggression could have been interpreted as positive feedback, instead of the intended negative feedback. If the study employed both a male and female confederate to serve for their corresponding gendered participants, there may have been personal factors influencing the data, resulting from

unequal confederates. Because of these reasons, and that Burger and his colleagues (2001; 2004) used exclusively female participants in similar studies, the participants of this study were all female.

I hypothesized that individuals who believe that they share a similarity with a confederate would be more likely to comply with a request from the confederate as well as rate the confederate as more likable than those who do not believe that they share a similarity with the confederate. I also hypothesized that in both the positive and negative valence conditions, the similarity condition would yield higher levels of liking and higher compliance rates than the corresponding control condition; however, I predicted that there would be a greater difference between the liking scores and compliance rates between the control condition and the similarity condition when the trait was positively valenced than when the trait was negatively valenced.

Method

Design

I conducted a 2 X 2 between-subjects factorial experiment. The independent variables were level of similarity, either similar or not similar, and valence of the trait, either positive or negative. The dependent variables were the level of liking the participant indicates for the confederate, as well as the participant's compliance to a request presented by the confederate.

Participants

Sixty female undergraduate students from a pool of introductory psychology course students, as well as students from other psychology courses, served as participants, with 15 participants in each condition. The data from 6 participants were omitted from analysis because of suspicion ($n = 3$) or failure to pass the valance manipulation check ($n = 3$), resulting in 54 participants. The removal of these participants' data did not impact the results of analysis. The

positive similarity condition had 15 participants, the positive control had 11 participants, the negative similarity condition had 13 participants, and the negative control condition had 15 participants. Participants received partial class credit or extra credit for their participation.

Materials

Personality.

A fabricated personality inventory was constructed from 30 items from the International Personality Inventory Pool (Goldberg et al., 2006) and 10 items from an emotional intelligence questionnaire (see Appendix A). This inventory was solely employed in order to lend credence to the study's cover story. The participants' responses to the inventory were not truly scored or used in any of the study's results. The constructed personality inventory amounted to 40 items, which was thought to be sufficient to convince the participants of its validity.

Valenced feedback.

Participants received a feedback sheet about the personality inventories that they took (see Appendix C). The feedback included a bogus score, percentile associated with the score, a statement comparing the score to those of other college students, and a brief paragraph explaining the implications of low and high scores on the bogus scale. This material was used to manipulate the valence of the feedback. In the positive valence condition, feedback included a score of 7, 20th percentile, and the statement that the participant scored lower than 80% of college students. In the negative valence condition, feedback included a score of 33, 80th percentile, and the statement that the participant scored higher than 80% of college students. Both positive and negative conditions' feedback included the statement: "The effects of emotional aggression often do not become evident until later in a person's life. Individuals who score high on emotional aggression typically have difficulty creating lasting relationships in the workplace and difficulty with career advancement, as well as struggles in personal relations

outside the workplace. Individuals who score low on emotional aggression typically excel at making these personal and professional connections, and have a great deal of career success later in life."

Liking. Participants were asked to respond to a number of statements concerning the confederate of the study and the participants' scores, under the ruse of measuring participants' first impressions (see Appendix D). The questionnaire was comprised of 12 items, including 7 filler items in order to add credibility to the study's cover story. The questionnaire's true purpose in the study was to measure the amount of liking participants felt for the confederate, as well as to check for successful manipulations of feelings of similarity for the confederate and the valence of the personality inventory feedback.

In order to determine the amount of liking the participants felt towards the confederate, three items were added, which were adopted from the study by Burger et al. (2001). The three items of the composite liking score were shown to have good reliability for Burger's study, Cronbach's $\alpha = 0.87$, and adequate reliability for this study, Cronbach's $\alpha = 0.72$. The items that were used in this study were: (a) "Do you think you would like this person if you got to know him/her better?"; (b) "Would you enjoy spending more time with this person?"; and (c) "Do you think you could be long-term friends with this person?" These items were answered by selecting a number on a 7-point scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The values from all three questions were summed to comprise each participant's composite liking score, which was one of the dependent variables. These items were embedded within a larger set of filler questions to reduce suspicion and support the cover story of studying first impressions.

Manipulation Checks. In order to check for intended manipulation of similarity, the final set of questions (including the aforementioned liking items) included a statement, "The

other participant is similar to me," to which the participant could agree or disagree on a 7-point scale, ranging from 1 (*not at all similar*) to 7 (*very similar*).

In order to check for intended manipulation of valence, the final set of questions also included a question, "How happy are you with your score?" to which the participant could respond on a 7-point scale, ranging from 1 (*very unhappy*) to 7 (*very happy*).

Demographic information. Participants answered a number of demographic-based questions as a part of the study's cover story, including gender, age, intended major, career aspirations, reasons for intended major and career aspirations, birth order ranking, number of other siblings, and other siblings' ages, if applicable (see Appendix B). In actuality, none of this information was used for the study, other than to provide a more convincing cover story and give time for the experimenter to feign scoring the personality inventory.

Procedure

The procedure was modeled after those from studies by Burger et al. (2001; 2004). Participants were led to believe that they were to be involved in a study about birth order in relation to personality and first impressions. Soon after the participant arrived at the experiment meeting place, where the experimenter was waiting, the experimenter signaled the confederate to come to the experiment meeting place. The confederate was signaled to arrive after the participant in order to minimize the amount of social interaction before the experiment between herself and the participant, thereby avoiding any influence the extra interaction may have on the dependent variables. The female confederate, posing as another participant, then walked up to the experimenter and indicated that she had signed up to participate in the experiment. The experimenter led the participant and the confederate to the experiment room, a few minutes' walk away. The room was a small study room and had a large desk close to the door, with one

chair for the experimenter, and two chairs on the opposing side, approximately 2-3 feet apart, for the participant and the confederate. After the two were seated, the experimenter told both of them, "Hi, thank you for coming. This study will be examining birth order in relation to personality and first impressions. First, I'll have you both read and sign an informed consent form if you are willing to participate in this study. Please let me know if you have any questions about the study." The experimenter then handed the participant and the confederate informed consent forms. If the participant agreed to continue by signing the informed consent form, the experimenter then continued, "All right, now I'll give you each a personality inventory to complete. Each of you will receive a unique study ID number so I can match up your data; your name will never be linked to this ID number. Please make sure that your correct ID number is at the top of every sheet. Once you are both finished, please hand your answer sheets to me and we will continue." The experimenter distributed the personality inventory and a response sheet with the participant's and the confederate's ID numbers at the top. The confederate feigned her answers to the personality inventory, making sure to keep pace with the participant.

After the participant finished and both individuals returned their completed personality inventories to the experimenter, the experimenter addressed them again, "Thank you. I am now going to give you each a questionnaire about some of your demographic information. While you complete that, I will score your first personality inventories. You will be able to view your results before we begin the last segment of the study." As the individuals filled out the questionnaire, the experimenter exited his seat, taking the personality inventories and a folder to some other desks at the back of the room, out of sight. At this point, the experimenter checked to see which one of the four conditions to which the participant had been randomly assigned beforehand (positively-valenced similarity; positively-valenced no-similarity; negatively-

valenced similarity; negatively-valenced no-similarity). The experimenter then filled in the participant's and confederate's study ID numbers on the top of two feedback forms, pre-determined fabricated scores, the corresponding fabricated percentile, and a statement that indicated the percentage of college students the participant had allegedly scored lower or higher than. The confederate paced herself in accordance with the participant, completing the task at approximately the same time. After the individuals completed the demographic and background information questionnaire, the experimenter collected the sheets. Both the personality inventory and the demographic and background questionnaire were simply a part of the cover story and were not actually scored by the experimenter, nor were they used in any of the study's results.

In the similarity conditions, the experimenter pretended to accidentally mix up the feedback sheets, handing the participant's feedback sheet to the confederate and the confederate's to the participant. The participant was given bogus feedback indicating that the confederate scored unusually high (for the negatively-valenced similarity condition) or low (for the positively-valenced similarity condition) in emotional aggression, along with a statement concerning the implications of a low or high score. In the negatively-valenced conditions, the percentile showed that both the participant and confederate scored higher than 80% of college students who have taken the inventory, indicating that they are highly emotionally aggressive. In the positively-valenced conditions, the percentile showed that both the confederate and the participant scored lower than 80% of college students, indicating that they are not very emotionally aggressive. The confederate waited 10 seconds before vocally stating that the experimenter must have made a mistake in handing the feedback sheets to the wrong people, unless the participant realized that she had received the confederate's feedback sheet instead of her own before ten seconds had passed. The experimenter took the sheets back and redistributed

them, apologizing and casually pointing to the closeness and extremeness of the scores as the reason he accidently confused the papers. The feedback sheet with the participant's student identification number will display identical feedback to that of the confederate. Participants in the negatively-valenced similarity condition will receive feedback indicating a high level of emotional aggression, and participants in the positively-valenced similarity condition will receive feedback indication a low level of emotional aggression.

In the no-similarity (control) conditions, instead of accidentally switching the participant's and confederate's papers, the experimenter "accidentally" handed both the participant and the confederate their informed consent forms, pretending to be engrossed in his notes. This was to keep the occurrence of the experimenter making a mistake constant throughout all of the conditions. After 10 seconds, the confederate vocally stated that the experimenter must have made a mistake and handed back the informed consent forms instead of the personality inventory results, unless the participant noticed and commented upon this first. The experimenter apologized and handed the participant and the confederate the written fabricated feedback about the results of the personality inventory. Participants in the negatively-valenced control condition were given feedback that they scored unusually high in emotional aggression, whereas participants in the positively-valenced control condition were given low-scoring feedback.

The experimenter then told the participant and the confederate, "Now, once you are done viewing your results, I'll take that sheet back and give you the last segment of the study, which is a survey about first impressions. Your responses will be kept confidential, so please answer honestly." The survey was used to measure one of the dependent variables of the study—the amount of liking the participant feels toward the confederate. It also included two manipulation

checks: “This person is similar to me,” will check for the success of the similarity manipulation, and “How happy are you with your emotional aggression score?” will check for the success of the valence manipulation.

The experimenter took the final survey back, then thanked the individuals for their participation and quickly departed the room. As the confederate and the participant gathered their things to leave, the confederate pulled a 15-page paper out of her backpack. The confederate explained to the participant that one of her professors was requiring her to have the essay critiqued by someone she does not know. The confederate made the request by saying, “So, I have this essay I’m supposed to get critiqued by somebody I don’t already know for my ethics class. I think my professor wants us to try to avoid bias from our friends looking at it or something. Do you think you could critique it for me and write one page, double-spaced, of feedback on how convincing my arguments are? The paper is about fifteen pages long. You would have to e-mail your feedback to my professor by this time tomorrow.” The confederate waited until the participant gave a clear indication of her willingness to comply with the request, not repeating the request or making any additional effort to persuade the participant. If the participant complied with the request, the confederate handed her the essay.

As the participant and the confederate left the room, the experimenter stopped them and asked them to return to the experiment room to receive a full debriefing. The experimenter probed the participant for suspicion and then fully debriefed her.

Results

Manipulation Checks

To determine if the similarity manipulation was successful, a 2 (valence) x 2 (similarity) Analysis of Variance (ANOVA) was conducted. The analysis revealed a statistically significant a

main effect of similarity, $F(1, 52) = 4.11$, $p < 0.05$, *partial eta squared* = 0.08. Participants who believed that they shared a similarity with the confederate tended to agree more strongly with the statement, "This person is similar to me," ($M = 4.70$, $SD = 1.39$) than participants who did not believe they shared a similarity with the confederate ($M = 3.92$, $SD = 1.33$). The analysis did not reveal a significant main effect of valence, $F(1, 52) = 0.58$, $p > 0.05$, *partial eta squared* = 0.01. Participants who received positive feedback felt no more similar to the confederate ($M = 4.58$, $SD = 1.63$) than participants who received negative feedback ($M = 4.14$, $SD = 0.97$). The analysis did not reveal a statistically significant interaction effect between the valence of the feedback and partner similarity, $F(1, 52) = 0.16$, $p > 0.05$, *partial eta squared* = 0.00.

To determine if the valence manipulation was successful, another 2 (valence) x 2 (similarity) ANOVA was conducted, with score satisfaction as the dependent variable. The scores from participants who had failed to pass the valence manipulation check were added back into the pool of data for the following analyses in order to more clearly represent participant responses to valence. The analysis revealed a statistically significant main effect of valance, $F(1, 54) = 80.80$, $p < 0.01$, *partial eta squared* = 0.61. Participants who received positive feedback were happier with their scores ($M = 5.88$, $SD = 0.86$) than participants who received negative feedback ($M = 3.14$, $SD = 0.89$). The analysis did not reveal a significant main effect of similarity, $F(1, 54) = 0.01$, $p > 0.05$, *partial eta squared* = 0.00. Participants who believed that they shared a similarity with the confederate were no more likely to be happier about their scores ($M = 4.60$, $SD = 1.63$) than participants who did not believe that they shared a similarity with the confederate ($M = 4.29$, $SD = 1.65$). The analysis did not reveal a statistically significant interaction effect between the valence of the feedback and partner similarity in the extent to

which the participant felt happy or unhappy about her score, $F(1, 54) = 0.05$, $p > 0.05$, *partial eta squared* = 0.00.

Compliance

I hypothesized that that participants who believed that they shared a similarity with the confederate would tend to comply with a request from the confederate more than participants who did not believe that they shared a similarity. I also hypothesized that participants who were given positively-valenced feedback would show a larger difference between similarity and no-similarity conditions than participants who received negatively-valenced feedback. To test these hypotheses, I conducted a series of chi-square analyses. Inconsistent with the research hypotheses, chi-square testing using Fisher's Exact Test found no pattern of relationship between partner similarity and compliance with a request, $\chi^2(1) = 1.22$, $p > 0.05$, *phi* = -0.20. Participants who believed that they shared a similarity with the confederate were no more likely to comply with a request from the confederate than those who did not believe that they shared a similarity (see Table 1). Further statistical analysis using chi-square revealed no pattern of relationship between the valence of feedback and compliance with a request, $\chi^2(1) = 0.02$, $p > 0.05$, *phi* = -0.07. Participants who received positively-valenced feedback were no more likely to comply with a request from the confederate than those who received negatively-valenced feedback (see Table 2). To test for an interaction effect, two additional chi-square analyses were conducted. Among those who had been given positively-valenced feedback, statistical analysis did not reveal a pattern of relationship between partner similarity and compliance with a request, $\chi^2(1) = 0.06$, $p > 0.05$, *phi* = -0.15. Among those who had been given negatively-valenced feedback, chi-square analysis did not reveal a pattern of relationship between partner similarity and compliance with a request, $\chi^2(1) = 0.49$, $p > 0.05$, *phi* = -0.23. Inconsistent with the research hypotheses,

analyses showed no interaction effect between feedback valence and partner similarity on compliance (see Tables 3, 4).

Liking

I hypothesized that participants who believed that they shared a similarity with the confederate would like the confederate more than participants who did not believe that they shared a similarity. I also hypothesized that participants who received positive feedback would show an even larger difference between similarity and no-similarity conditions than participants who received negative feedback. In order to test these hypotheses, a 2 (valence) X 2 (similarity) ANOVA was conducted, with the composite liking score as the dependent variable. Contrary to the research hypothesis, statistical analysis revealed no main effect of similarity $F(1, 52) = 0.87$, $p > 0.05$, *partial eta squared* = 0.02. Participants who believed that they shared a similarity with the confederate ($M = 13.70$, $SD = 2.18$) did not like or dislike the confederate significantly more than participants who did not believe that they shared a similarity ($M = 13.21$, $SD = 2.30$). Analysis showed no significant main effect of valence, $F(1, 52) = 0.32$, $p > 0.05$, *partial eta squared* = 0.01. Participants who were given positively-valenced feedback ($M = 13.38$, $SD = 2.42$) did not like or dislike the confederate significantly more than participants who were given negatively-valenced feedback ($M = 13.57$, $SD = 2.08$). Contrary to the research hypothesis, the analysis did not reveal a statistically significant interaction between the valence of the feedback and partner similarity, $F(1, 50) = 0.64$, $p > 0.05$, *partial eta squared* = 0.01.

Although not hypothesized directly, statistical analysis did reveal a moderate-strong correlation between composite liking score and the amount of similarity the participant felt toward the confederate, $r = 0.39$, $p < 0.01$. Participants who believed they were more similar to the confederate tended to like the confederate more.

Discussion

I hypothesized that individuals who believed that they shared a similarity with another person would be more likely to comply with a request from that person, as well as experience more feelings of liking for that person. I also hypothesized that these tendencies would be more pronounced for those who believed that they shared a positively-valenced similarity than those who believed that they shared a negatively-valenced similarity. Previous studies by Burger et al. (2001, 2004) have found that individuals who believe that they share a similarity with another person tend to like that person significantly more than they would if they did not believe there was a shared similarity. The same studies also found that individuals were more likely to comply with a request from someone with whom they shared a similarity (Burger et al., 2001, 2004). The present study, however, did not support these results.

The hypothesized results were based on the theory that the similarity manipulation would evoke one of Heider's unit relationships between the participant and the confederate (Heider, 1958). Because of the unit relationship, the participant would feel as though she were dealing with a friend, someone to whom she felt a fleeting attraction and to whom she would automatically say "yes" when presented with a request. The results indicated that the experiment design had succeeded in its manipulations; positive and negative feedback tended to result in respective positive and negative feelings about the scores, and seeing that the confederate received the same feedback as the participant tended to lead to more feelings of similarity towards the confederate. Despite the successful manipulations, however, the results found no differences among these groups in terms of how much the participants reported liking the confederate and how likely they were to comply with a request from the confederate. It is possible that the participant and the confederate did not interact enough to create the feeling of a

unit relationship strong enough to produce the hypothesized increase in compliance. Before the presentation of the request, the only interaction the participant and the confederate had together is when they gave one another each other's paper, if the participant was in the similarity condition. In a study by Burger et al. (2001), they found that participants who engaged in a two-minute conversation with a confederate were more likely to comply with a request from the confederate than participants who were instructed not to speak to a confederate. However, even the participants in the study who were not allowed to converse with the confederate, and simply sat next to the confederate while the study was conducted, were significantly more likely to comply with a request than participants who did not even see a confederate until the confederate presented the participants with a request. According to the results of Burger's study, then, being merely exposed to the confederate is enough to induce the fleeting feelings of attraction associated with a unit relationship. However, the confederate specifically and consciously tried to eliminate making any additional eye contact or remarks to participants to avoid complicating the results of the study with varying degrees of interpersonal chemistry. Relatedly, the participant and confederate in each of Burger's study sessions sat across a table from each other, whereas in the present study, the participant and confederate sat next to one another, facing the experimenter. These strategies may have been overly stringent and unnatural, and actually hindered the fostering of a sufficient unit relationship, leading to the overall low liking levels participants felt towards the confederate.

Additionally, because the confederate and all of the participants were female, with a male experimenter, it is possible that some participants felt slight to moderate senses of sexual competition. This could certainly have affected those participants' liking rates of the confederate. The confederate and experimenter were also romantically involved with one another, so although

they may have played their roles to the best of their abilities, some participants may have implicitly felt the connection and been influenced by it. The influence might have manifested itself in the low liking rates, or in decreasing the credibility of the cover story, which a handful of participants doubted. However, it is important to note that none of the participants voiced any suspicions concerning the romantic relationship between the confederate and the experimenter.

Another issue that may have influenced the results of the present study is concerning the characteristics of the sample. The participants were all students from a small, rurally-located, community-oriented, liberal arts institution in the upper Midwest United States. The strong community orientation associated with the school may have discouraged the participants from refusing the request. The participants may have felt like there was an expectation or obligation to help the confederate simply because they were both part of the tightly-knit community. This would explain the ceiling effect found with very low number of "no" responses to the confederate's request, although there is the possibility that participants did not find the task associated with the request as undesirable as anticipated. Although not recorded, the confederate and experimenter noted that request refusals seemed to occur most often on Thursday evening study sessions, when the participants claimed that they had exams or essays due the next day and would not have time to critique the confederate's essay. The small sample size may have also contributed to these non-statistically significant findings, which was modest to begin with, but was whittled down further with the need to eliminate data from suspicious or confused participants.

However, if one suspends the non-significance of the statistical analyses for a moment, and one can see possible trends of compliance rates among conditions (see Tables 1, 3, 4). Looking at the overall frequencies of compliance between similarity and control conditions,

individuals were actually 3.5 times more likely to refuse the request when they were in the similarity condition than in the control condition (7 similarity individuals and 2 control individuals refused the request). This is contrary to what the research hypothesis would predict, as sharing a similarity is thought to induce more compliance, less refusal to requests. This trend holds true for each of the valence conditions: individuals in the similarity condition were 4 times more likely to refuse among those with a positively-valenced trait, and similarity condition individuals were 3 times more likely to refuse among those with a negatively-valenced trait. Although no statistical significance was found in compliance between similarity and control conditions, it is worth noting that the patterns of refusal are in the opposite direction of what one would expect. If the trend were continue to the point of statistical significance in additional studies, one explanation may be found in characteristics of the sampling population. In the Midwest, where the stereotype of "Minnesota nice" abounds, it may actually be easier for individuals to say "no" to people to whom they feel closer or more similar. In Midwestern culture, it may be considered more of an expectation for an individual to do something helpful for another member of the community than it is considered a favor for a friend. Refusing the request may have been a sign of the individual's comfort with the confederate, that she could "be real" with a friend, instead of having to be "Minnesota nice" and polite.

Despite the postulated limitations concerning the methodology and sampling procedures of the study, there are alternative explanations for the study's results. In the vast majority of the existing literature on the effects of similarities on compliance and liking, as well as the literature on implicit egotism, the similarities that the individual and partner share are largely incidental. Participants have shared birthdates (Burger et al., 2004, Silvia, 2005; Finch & Cialdini, 1989), names (Burger et al., 2004; Guéguen et al., 2005), and even the same type of fingerprint (Burger

et al., 2004), all of which have no real bearing on the individual as a person. In the present study, however, the participants found that they shared a personality trait with the confederate. A personality trait is a way to self-identify, a reflection of who someone is. So, the level of emotional aggression one has may have more weight in an individual's mind than something like the numbers of his or her birthdate or simply just being in the same room as another person. Because a personality trait has more bearing on an individual, it is possible that the sort of automatic thinking associated with behaving heuristically was not activated as it would be with a less impactful incidental similarity. Individuals sharing a non-incidental similarity with the confederate may be the caveat to the similarity-compliance trend found ubiquitously in the existing literature. This reasoning would explain why the participants in the present study were no more likely to comply with a request when they believed they shared the same level of emotional aggression as the confederate.

Perhaps the distinction ought not to be drawn between incidental and non-incidental, however. Another aspect of the similarities used in previous research is that, for the large part, they are all unchanging, congenital self-identifiers, like a birthdate or first name. It could be that because individuals see them as things that are always true and self-defining, that having them in common with another person is more impactful. Although people like to think of their personalities as fairly stable, personality traits are more subjective and one is almost always somewhere on a continuum. Personality trait levels are harder to define and often become even more unclear when taking different contexts and life stages into consideration. So, it is possible that solidity of things such as one's birthdate and first name makes them more effective as similarities to induce compliance than more abstract things like one's level of emotional aggression.

Future research is encouraged to examine how differing amounts of interaction between the participant and the confederate would influence the compliance rates and liking ratings from participants. Perhaps too much or too little interaction threatens the manifestation of a unit relationship, and the resulting heuristic processing of requests. Research might also examine possible gender differences, as males may be less likely to be as socially-oriented and produce data without ceiling effects for compliance. Relatedly, there may be differences in compliance rates or liking ratings when the experimenter is of the same or opposing gender as the participant and confederate.

Although the present study was unable to replicate past findings or reveal new ones, it is clear that this growing body of psychological research on unit relationships, heuristic processing, and compliance has major implications for real-life applications. From individuals selling merchandise to customers to individuals selling themselves to potential employers, knowing how to evoke these warm, fleeting feelings of attraction associated with the formation of a unit relationship can be invaluable.

References

Arkin, R. M., & Burger, J. M. (1980). Effects of unit relation tendencies on interpersonal attraction. *Social Psychology Quarterly, 43*, 380-391. doi: 10.2307/3033958

Burger, J. M., Messian, N., Patel, S., del Prado, A., & Anderson, C. (2004). What a coincidence! The effects of incidental similarity on compliance. *Personality and Social Psychology Bulletin, 30*, 35-43. doi: 10.1177/0146167203258838

Burger, J. M., Soroka, S., Gonzago, K., Murphy, E., & Somervell, E. (2001). The effect of fleeting attraction on compliance to requests. *Personality and Social Psychology Bulletin, 27*, 1578-1586. doi: 10.1177/01461672012712002

Cialdini, R. B., & de Nicholas, M. E. (1989). Self-presentation by association. *Journal of Personality and Social Psychology*, 57, 626-631. doi:10.1037/0022-3514.57.4.626

Cialdini, R. B., Finch, J. F., & De Nicholas, M. E. (1990). Strategic self-presentation: The indirect route. In Cody, Michael J., McLaughlin, Margaret L. (Eds.), *The psychology of tactical communication* (pp. 194-206). Clevedon, England: Multilingual Matters.

Clark, M. S., Oullette, R., Powell, M. C., & Milberg, S. (1987). Recipient's mood, relationship type, and helping. *Journal of Personality and Social Psychology, 53*, 94-103. doi: 10.1037/0022-3514.53.1.94

Finch, J. F., & Cialdini, R. B. (1989). Another indirect tactic of (self-) image management: Boosting. *Personality and Social Psychology Bulletin, 15*, 222-232. doi: 10.1177/0146167289152009

Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M. C., Cloninger, C. R., & Gough, H. C. (2006). The International Personality Item Pool and the future of public-

domain personality measures. *Journal of Research in Personality, 40,* 84-96. doi: 10.1016/j.jrp.2005.08.007

Gomes, C. F. A., Brainerd, C. J., & Stein, L. M. (2013). Effects of emotional valence and arousal on re-collective and nonrecollective recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 39*, 663-677. doi: 10.1037/a0028578

Guéguen, N., Martin, A., & Meineri, S. (2011). Similarity and social interaction: When similarity fosters implicit behavior toward a stranger. *The Journal of Social Psychology, 151*, 671-673. doi: 10.1080/00224545.2010.522627

Guéguen, N., Pichot, N., & Le Dreff, G. (2005). Similarity and helping behavior on the web: The impact of the convergence of surnames between a solicitor and a subject in a request made by e-mail. *Journal of Applied Social Psychology, 35*, 423-429. doi: 10.1111/j.1559-1816.2005.tb02128.x

Heider, F. (1958). *The psychology of interpersonal relations*: Hoboken, NJ, US: John Wiley & Sons Inc. doi:10.1037/10628-000

Insko, C. A., & Wilson, M. (1977). Interpersonal attraction as a function of social interaction. *Journal of Personality and Social Psychology, 35*, 903-911. doi: 10.1037/0022-3514.35.12.903

Jones, J. T., Pelham, B. W., Carvallo, M., & Mirenberg, M. C. (2004). How do I love thee? Let me count the Js: Implicit egotism and interpersonal attraction. *Journal of Personality and Social Psychology*, *87*, 665-683. doi:10.1037/0022-3514.87.5.665

Pelham, B. W., Mirenberg, M. C., & Jones, J. T. (2002). Why Susie sells seashells by the seashore: Implicit egotism and major life decisions. *Journal of Personality and Social Psychology*, *82*, 469-487. doi:10.1037/0022-3514.82.4.469

Silvia, P. J. (2005). Deflecting reactance: The role of similarity in increasing compliance and reducing resistance. *Basic and Applied Social Psychology, 27*, 277-284. doi: 10.1207/s15324834basp2703_9

Simonsohn, U. (2011). Spurious? Name similarity effects (implicit egotism) in marriage, job, and moving decisions. *Journal of Personality and Social Psychology*, *101*, 1-24. doi:10.1037/a0021990

Snyder, C. R., Lassegard, M., & Ford, C. E. (1986). Distancing after group success and failure: Basking in reflected glory and cutting off reflected failure. *Journal of Personality and Social Psychology*, *51*, 382-388. doi:10.1037/0022-3514.51.2.382

Williamson, G. M., & Clark, M. S. (1992). Impact of desired relationship type on affective reactions to choosing and being required to help. *Personality and Social Psychology Bulletin, 18*, 10-18. doi: 10.1177/0146167292181002

Table 1

Frequency of compliance (in numbers of participants) with a request from a confederate between participants who believed that they shared a similarity with the confederate and participants who did not believed that they shared a similarity with the confederate.

	Comply	Refuse
Similarity	23	7
No similarity	22	2

Table 2

Frequency of compliance (in numbers of participants) with a request from a confederate between participants who received positively-valenced feedback and participants who received negatively-valenced feedback.

	Comply	Refuse
Positively-valenced feedback	21	5
Negatively-valenced feedback	24	4

Table 3

Frequency of compliance (in numbers of participants) with a request from a confederate among participants who received positively-valenced feedback, between those who believed that they shared a similarity with the confederate and those that did not.

	Comply	Refuse
Positively-valenced similarity	13	4
No similarity	8	1

Table 4

Frequency of compliance (in numbers of participants) with a request from a confederate among participants who received negatively-valenced feedback, between those who believed that they shared a similarity with the confederate and those that did not.

	Comply	Refuse
Negatively-valenced similarity	10	3
No similarity	14	1

Appendix A

Personality Inventory

*Please read each statement and respond on your separate answer sheet by indicating how accurate each statement is as a description of you, from 1 (*very inaccurate*) to 7 (*very accurate*). Try to describe yourself honestly to ensure an accurate score.*

1. I am able to fit into any situation.

2. I keep my sense of humor, even in gloomy situations.

3. I do not get angry when verbally attacked.

4. I consider myself to be a wise person.

5. I know what makes others tick.

6. I am comfortable with others' grief, even those in close relationship to me.

7. I am easy to get to know.

8. I worry about things.

9. I am the life of the party.

10. I have a soft heart.

11. I get angry or fearful when physically threatened.

12. I have a good imagination.

13. I am able to decide to love another and then do so.

14. I am quick to understand things.

15. I don't mind being the center of attention.

16. I get irritated easily.

17. I am comfortable with others' anger and hate.

18. I start conversations.

19. I use difficult words.

20. At times and in some circumstances, I feel shame.

21. I am exacting in my work.

22. I will not probe deeply into a subject.

23. My anger keeps coming back in certain situations or with certain people.

24. I am quiet around strangers.

25. I tend to take charge.

26. I inquire about others' well-being.

27. I feel guilty for some things I have done in the past.

28. I make people feel at ease.

29. I am a very private person.

30. I can handle a lot of information.

31. I worry regularly in some circumstances.

32. At times, I feel degraded or humiliated.

33. I think of others first.

34. I am good at many things.

35. I get caught up in my problems.

36. I follow a schedule.

37. I change my mood a lot.

38. I regularly get anxious about some situations.

39. I often forget to put things back in their proper place.

40. I am interested in people.

Appendix B

Study ID Number: _____

Demographics and Background

Gender (circle one): male female

Age:

Intended major:

Intended minor:

Possible career aspirations:

Reasons for intended major and/or career aspirations:

Number of other siblings:

Your birth order ranking (For example, if you have one older sibling, then your birth order ranking is second. If you have younger siblings, but no older siblings, or you are an only child, your birth order ranking is first.):

Please list all of your siblings' ages:

Appendix C

Student ID Number: _____

Emotional Aggression Feedback

*The effects of emotional aggression often do not become evident until later in a person's life. Individuals who score **high** on emotional aggression typically have difficulty creating lasting relationships in the workplace and difficulty with career advancement, as well as struggles in personal relations outside the workplace. Individuals who score **low** on emotional aggression typically excel at making these personal and professional connections, and have a great deal of career success later in life.*

Score: _____

Percentile: _____

You scored _____ than _____% of college students.

Appendix D

Study ID Number: _____

First Impressions

*Please read each statement and respond by indicating how accurate each statement related to your own feelings about the **other participant** in this session of the study, from 1 (*strongly disagree*) to 7 (*strongly agree*). Try to respond honestly to ensure an accurate representation of your sentiments.*

	strongly disagree			neutral			strongly agree
1. This person seems like someone who appreciates order.	1	2	3	4	5	6	7
2. I think I would like this person if I got to know him/her better.	1	2	3	4	5	6	7
3. This person seems like someone who is the life of the party.	1	2	3	4	5	6	7
4. I would enjoy spending more time with this person.	1	2	3	4	5	6	7
5. This person seems like someone who tends to worry a lot.	1	2	3	4	5	6	7
6. I think I could be long-term friends with this person.	1	2	3	4	5	6	7
7. This person seems like someone who has excellent ideas.	1	2	3	4	5	6	7
8. The other participant is similar to me.	1	2	3	4	5	6	7

9. What was your score on the emotional aggression scale? _____

	very unhappy			neutral			very happy
10. How happy are you with your score?	1	2	3	4	5	6	7