6-2012

Does Personality Moderate Reciprocity?

Arianna Groveman
Union College - Schenectady, NY

Follow this and additional works at: https://digitalworks.union.edu/theses

Part of the Behavior and Behavior Mechanisms Commons

Recommended Citation
https://digitalworks.union.edu/theses/829
Does Personality Moderate Reciprocity?

Arianna Groveman

Union College
Abstract

I completed this experiment in order to better understand how personality moderates reciprocity. Reciprocity is a compliance strategy that involves giving or doing something for someone in exchange for something in return (Cialdini, 1993). I originally predicted that high self-monitors would show greater reciprocity than low self-monitors. Also, I predicted people with high need for cognition will show more reciprocity than people with a low need for cognition. In addition, I hypothesized that people with a low need to evaluate will show more reciprocity than people with a high need to evaluate. Participants were randomly assigned to either a “Soft Sell” Condition, in which reciprocity was not explicitly invoked, a “Hard Sell” Condition, in which reciprocity was explicitly invoked, or a control condition, in which no reciprocity was invoked. Reciprocity was measured by the amount of words that participants used to answer a mundane questionnaire. Although there were the predicted differences in reciprocity between the different personality types, these differences were not significant.
Does Personality Moderate Reciprocity?

From an early age, people learn that everyone is different. Although this relates to physical similarities, it also relates to personality characteristics. People have a wide range of personalities. One recognizes this in their family, friends, and throughout growing up constantly meeting new people. Personality predicts lots of things, such as with whom you become friends, the type of student a person is, and how people act at a party. Is it possible that personality might also explain how likely someone is to reply to a request? If it is possible, one could also ask the question: “Why are some people more likely to return a favor than others?”

**Personality**

McAdams (2009) described personality as the individual differences in people. He defined a personality trait as a “general, internal, and comparative disposition that we attribute to people in our initial efforts to sort individuals into meaningful behavioral categories and to account for consistencies we perceive or expect in behavior from one situation to the next and over time” (p. 5). Costa and McCrae (1992) have suggested a five-factor model (FFM) to describe broad domains of personality. These traits are openness, conscientiousness, extraversion, agreeableness, and neuroticism. These personality traits can be used to predict how an individual may respond in specific situations.

McAdams (2009) described the traits associated with the FFM. Openness to experience is a group of characteristics that describe the reflective, imaginative, artistic and refined parts of one’s personality. Those high in openness to experience have a great interest in art and intellectual pursuits. Those low in openness to experience are more likely to be set
in socio-cultural norms. Conscientiousness involves a group of characteristics that deals with the degree to which a person is diligent, reliable, and organized. Those who are high in conscientiousness are responsible and rational in their approach to problems. Those who are low in conscientiousness are indecisive and lethargic. Extraversion is a measure of how outgoing and impulsive a person is. Extraverts seek out social situations and are spontaneous. People who are low in extraversion, called introverts, are withdrawn and plan their actions. Agreeableness is a measure of characteristics that include altruism, compassion, and affection. Those who are highly agreeable are likely to show empathy and selflessness, whereas those who are low in agreeableness are likely to have an emotional disconnect with people around them. The last of the big five personality traits is neuroticism. Those who are high in neuroticism experience negative emotions such as anxiety, depression, and low self-esteem. People who are low in neuroticism experience positive emotions such as high self-image and stable emotional state.

**Personality and Persuasion**

Knowles and Linn (2004) described persuasion as an act attempting to influence ones’ beliefs. Considerable research has been conducted about how personality moderates persuasion techniques. There is research to indicate that specific personality traits have been shown to influence how people are persuaded. Reinhard and Messner (2009), for example, found that need for cognition acts as a moderator for persuasive techniques. Need for cognition is a stable personality characteristic and measures the extent to which people actively seek out difficult problem solving scenarios (Cacioppo & Petty, 1982). Reinhard and Messner (2009) found that people who are low in need for cognition are more likely to be
persuaded by source likeability and outright persuasive techniques than are people with high need for cognition. First, they asked participants to fill out the need for cognition scale created by Cacioppo and Petty (1982) and then they were asked to view one of two print advertisements for a camera. The two print advertisements were identical except in one of them there was text above the man marketing the camera that stated: “I want to persuade you to buy this camera. It is unique.” Next, participants read an interview between the man in the advertisement and a radio host. The man in the advertisement was either portrayed in positive or negative light. In the dislikable condition, the man boasted about his new expensive BMW car, whereas in the likeable condition the man talked modestly about his new bicycle. They found an interaction between source likeability and explicit persuasiveness for people with low need for cognition. However, they did not find this interaction for people with high need for cognition. Their findings illustrate that those with low need for cognition are more likely to be influenced by source likeability and outright persuasive techniques; people with low need for cognition were more easily persuaded by a likable source for the advertisement and when they were explicitly told someone was trying to persuade them.

In addition, Shakarchi and Haugtvedt (2004) found differences in personality characteristics in resistance to persuasion. They conducted an experiment with college students, asking them to fill out scales to determine need to evaluate, need for cognition, and propensity to self-reference. Shakarchi and Haugtvedt compared the students to determine the factors associated with whether they resist persuasion. They did not find a significant correlation between need for cognition and resistance to persuasion. They found that there was a positive correlation between need to evaluate, a personality measure of how people actively assess a situation, and resistance to persuasion, meaning that those who were high in
need to evaluate were more likely to resist persuasion than those with low need to evaluate.

Brinol, Rucker, Tormala, and Petty (2004) found that people have different rates of persuasion depending on their beliefs and meta-beliefs. They defined resistance to persuasion as having minimal or no change in one’s beliefs after persuasive measures are implemented. They discussed that people are more likely to resist persuasion when they have strong metabeliefs, meaning that the person is aware of the strength and his/her standing on a specific topic. This leads them to believe that if people know about their personality dimensions they may try to correct for them and be more resistant to persuasion when they are conscious of their beliefs and personality. They conducted research on college students asking them to read an editorial about including more broccoli in their diets. The participants who believed they were easily persuaded were persuaded at a greater level than those participants who believed they were not easily persuaded to include more broccoli in their diets. Brinol et al. (2004) also discuss further research conducted by Cialdini that indicates that people who have high consistency in their beliefs are more likely to resist persuasion than those who have low consistency in their beliefs.

Self-monitoring is another important personality variable. Research conducted by Snyder has found that some people are more likely to adapt to situations than others. High self-monitors adapt to situations and change personality to please others in their presence. This differs from low self-monitors who maintain their personalities independent of their situation (Snyder, 1974). Evans and Clark (2011) researched how source characteristics and self-monitoring moderated persuasion. They manipulated an argument, making it either weak or strong. They also manipulated the argument source, making it either attractive or an
expert. Participants were asked to view a message about phosphate-based detergents and then asked to fill out questionnaires about their feelings about the product and finally they were asked to fill out a self-monitoring questionnaire. The dependent measures included thought listing, attitudes, thought-confidence, and thought-rating. Clark and Evans (2011) found that high self-monitors had higher thought-confidence with attractive experimenters, whereas low self-monitors had higher thought-confidence with expert experimenters. In addition, they found that for high self-monitors, argument quality had a greater affect on attitudes when the message was presented by an expert source. For low self-monitors, argument quality had a greater affect on attitudes when the message was presented by an attractive source. This study illustrates that high self-monitors and low self-monitors differ in how they are persuaded and have their attitudes changed: low self-monitors are more greatly influenced by expert sources, whereas low self-monitors are more greatly influenced by attractive sources.

**Current Research**

Although there has been vast research on how personality moderates persuasion techniques, there has been little research to date showing how personality moderates reaction to compliance techniques. Compliance techniques are used to motivate people to engage in an activity that they may not originally be willing to do without necessarily changing their opinions. An example of a compliance technique is reciprocity that involves giving or doing something for someone in exchange for something in return. Cialdini (1993) discussed reciprocity and posits that people are likely to do something for someone if someone has done something for them.
Bizer and Jordan (2011) conducted research to better understand the relationship between self-monitoring and reciprocity. They collected data using an online questionnaire. First, they asked participants to fill out a self-monitoring questionnaire. Then participants were asked to fill out an additional questionnaire that included items such as: “Please provide a brief summary of your favorite book” and “Please name and describe your favorite restaurant.” Two thirds of the participants were randomly offered a 20 percent bonus payment for their participation in the study. Of this group, half of the participants were put into a “Hard Sell” condition, where reciprocity was explicitly invoked. Bizer and Jordan (2011) asked participants in the “Hard Sell” condition to fill out an additional questionnaire by stating: “In return for the bonus, I hope that you might be willing to help answer several questions that should take no more than a minute or so. If you were to repay my favor by answering the extra questions, it would enhance the validity of my study. Of course, this is voluntary.” Bizer and Jordan (2011) asked participants in the “Soft Sell” condition and the Control condition (the last third of the participants) to answer the additional questionnaire by: “I hope that you might be willing to help answer several questions that should take no more than a minute or so. If you were to answer the extra questions, it would enhance the validity of my study. Of course, this is voluntary.” They measured the reciprocity rate by the amount of words that participants wrote for the additional questionnaire. They found that there was no difference between high and low self-monitors for words written by participants in the “Hard Sell” and Control conditions, but there was small, though non-significant difference, between high and low self monitors in the “Soft Sell” condition: high self-monitors wrote more on the additional questionnaire than low self-monitors.
The current research differed from the Bizer and Jordan study (2011) in that the survey was given in person rather than online. In addition, the incentives were different, candy instead of money, and the incentive was given in person rather than online. I expected that participants who received incentives in person would be more likely to show reciprocity than those who received incentives online. This is because people could feel more connected to the person who gives them the incentive because they can interact with the experimenter instead of reading about the incentive on a computer screen. Furthermore, the additional questionnaire involved mundane questions. This means that participants may not put in the same degree of effort in answering the questions as they would if the questions were interesting.

I expected there to be a significant difference between high and low self-monitors in the “Soft Sell” condition. I believed that compliance would be significantly higher for high self-monitors than for low self-monitors because high self-monitors rather than low self-monitors are more likely to behave in what they believe are socially desirable ways. In addition, because self-monitoring is negatively correlated with need to evaluate, I expected people with a high need to evaluate to have less levels of reciprocity. I also expected people with a high need for cognition to show more reciprocity than those with a low need for cognition because they are more likely to hypothesis guess and do what they believe is expected of them. I did not expect a difference in the amount words used to answer the additional questionnaire between groups in the “Hard-Sell” condition because everyone in the “Hard-Sell” should feel pressured to participate because reciprocity is explicitly invoked. Since there was no incentive given to respond in the control condition, I predicted that everyone, regardless of personality type, should respond with a similar amount of words.
Methods

Participants

There were 80 participants. All participants were students at Union College. Participation in the study was an option to fulfill course requirements for Introduction to Psychology or Research Methods or voluntary for a cash payment of four dollars.

Materials and Procedure

The participants were first given the informed consent form after which they were placed in individual cubicles and asked to fill out multiple questionnaires using MediaLab (Jarvis, 2010). Participants completed four measures: Self-Monitoring (Snyder, 1974), Need for Cognition (Cacioppo & Petty, 1982), Need to Evaluate (Jarvis & Petty, 1996), and Need for Structure (Webster, & Kruglanski, 1994). After the participants completed the first three questionnaires, they were asked to press the page button on the intercom. In response, the experimenter entered the cubicle and typed in a code to allow the participants to finish the questionnaires.

Participants were in one of three conditions: “soft sell,” “hard sell,” and control. The participants in the “hard sell” condition were offered M&Ms after they completed the first three personality measures and the experimenter entered the testing cubicle to enter in an arbitrary code into the computer to allow them to complete the last personality measure. The experimenter stated: “We have left over candy from a previous experiment and I really don’t want it here anymore. Do you want some?” Then the experimenter left and the participant was asked to complete the fourth personality measure. Then the experimenter asked the
participants in the “hard sell” condition to fill out an additional questionnaire by asking: “Since I gave you candy, would you be willing to fill out this additional questionnaire? It would increase the validity of the study; however, it is voluntary.” This additional questionnaire included mundane queries like “Describe the last meal you have eaten.”

The participants in the “soft sell” condition were also offered M&Ms after they completed the first three personality measures. They also then completed the last personality measure. After this, the experimenter asked the participants in the “soft sell” condition to fill out the same question as the participants in the “hard sell” condition asking: “I hope that you might be willing to help answer several questions that should take no more than a minute or so. If you were to repay my favor by answering the extra questions, it would enhance the validity of my study. Of course this is voluntary.”

The participants in the control condition were not given any candy. Instead, once they completed the first three questionnaires, the experimenter entered the testing cubicle to enter an arbitrary code into the computer program to allow them to complete the fourth personality measure. Once the participants in the control condition completed the four personality measures, they were asked to fill out the same additional questionnaire as the participants in the “hard sell” and “soft sell” conditions. The experimenter asked: “I hope that you might be willing to help answer several questions that should take no more than a minute or so. If you were to repay my favor by answering the extra questions, it would enhance the validity of my study. Of course this is voluntary.” Once the participants in the control condition completed the additional questionnaire, they were also offered M&Ms so as to avoid participants’ hypothesis guessing.
Results

We first assessed if NC and condition interacted to predict the number words volunteered. We recoded items of the Need for Cognition Scale (Cacioppo & Petty, 1982) and then assessed how need for cognition moderates reciprocity through an ANOVA. The number of words was submitted to a 2 (NC: high, low) x 3 (condition: hard sell, soft sell, control) ANOVA. There was no main effect of NC, $F(1,74) = .55, p = .46$, such that those low in NC wrote a similar amount of words ($M = 106.06$) to those high in NC ($M = 114.05$). There was also no main effect of condition, $F(2,74) = .80, p = .45$, such that those in the control condition ($M = 106.59$) wrote a similar amount of words to participants in the “soft sell” condition ($M = 103.78$) and participants in the “hard sell” condition ($M = 120.46$). As shown in Figure 1, these main effects were not qualified by an interaction, $F(2,74) = .82, p = .45$.

Even though there was no interaction, we explored the simple effects by conducting independent-samples t-tests. Among participants in the control condition, there was no effect of NC on reciprocity, $t(26) = -.03, p = .98$, such that low NC participants ($M = 106.38$) wrote a similar amount of words to high NC participants ($M = 106.80$). Among participants in the “soft sell” condition, there was no effect of NC on reciprocity, $t(24) = .12, p = .85$, such that low NC participants ($M = 105.82$) wrote a similar amount of words to high NC participants ($M = 101.73$). Among participants in the “hard sell” condition, there was no effect of NC on reciprocity, $t(24) = -1.32, p = .20$, such that low NC participants ($M = 105.92$) wrote a similar amount of words to high NC participants ($M = 135.00$).
We then assessed how self-monitoring moderated participants’ reciprocity rate. We recoded items of the self-monitoring scale (Snyder, 1974) and then assessed how self-monitoring affected reciprocity through an ANOVA. The number of words was submitted to a 2 (SM: high, low) x 3 (condition: hard sell, soft sell, control) ANOVA. There was no main effect of SM, $F(1,74) = .17, p = .69$, such that those low in SM wrote fewer words ($M = 107.72$) than those high in SM ($M = 112.50$). There was also no main effect of condition, $F(2,74) = 1.00, p = .37$, such that participants in the “hard sell” condition wrote more words ($M = 141.94$) than those in the control condition ($M = 125.81$) and the “soft sell” condition ($M = 122.86$). As shown in Figure 2, these main effects were not qualified by an interaction, $F(2,74) = .08, p = .93$.

Even though there was no interaction, we explored the simple effect by conducting independent-samples t-tests. Among participants in the control condition, there was no effect of SM on reciprocity, $t(26) = -.29, p = .78$, such that participants low in SM ($M = 104.08$) wrote a similar amount of words as those high in SM ($M = 108.80$). Among participants in the “soft sell” condition, there was no effect of SM on reciprocity, $t(24) = -.50, p = .62$, such that participants low in SM ($M = 97.00$) wrote a similar amount of words as those high in SM ($M = 107.50$). Among participants in the “hard sell” condition, there was no effect of SM on reciprocity, $t(24) = .04, p = .97$, such that participants low in SM ($M = 122.09$) wrote a similar amount of words as those high in SM ($M = 121.20$).

We then assessed how need to evaluate affected participants’ reciprocity. We recoded items of the Need to Evaluate (Jarvis & Petty, 1996) and then assessed how need to evaluate moderates reciprocity through an ANOVA. The number of words was submitted to a 2 (NE:
high, low) x 3 (condition: hard sell, soft sell, control) ANOVA. There was no main effect of NE, $F(1,74) = .12, p = .73$, such that those low in NE wrote fewer words ($M = 108.75$) than those high in NE ($M = 112.63$). There was also no main effect of condition, $F(2,74) = 1.00, p = .37$, such that participants in the “hard sell” condition wrote more words ($M = 141.94$) than those in the Control condition ($M = 125.81$) and the “soft sell” condition ($M = 122.86$). As shown in Figure 3, these main effects were not qualified by an interaction, $F(2,74) = 1.16, p = .32$.

Even though there was no interaction, we explored the simple effect by independent-samples t-tests. Among participants in the control condition, there was an effect of NE on reciprocity, $t(26) = -2.03, p = .05$, such that low NE participants ($M = 89.92$) wrote a greater amount of words than did high NE participants ($M = 121.07$). Among participants in the “soft sell” condition, there was no effect of NE on reciprocity, $t(24) = .309, p = .76$, such that low NE participants ($M = 106.62$) wrote a similar amount of words to high NE participants ($M = 100.31$). Among participants in the “hard sell” condition, there was not an effect of NE on reciprocity, $t(24) = .57, p = .58$, such that low NE participants ($M = 129.70$) wrote a similar amount of word to high NE participants ($M = 116.50$).

**Discussion**

Personality traits may moderate rates of reciprocity or reciprocity may occur at the same rate independent of personality traits. We investigated whether personality traits moderated reciprocity rates. Previous research has shown that people with certain personality traits are more likely to be persuaded. For example, high self-monitors are more likely to be persuaded than low self-monitors, people with a high need for cognition are more likely to be
persuaded than people with a low need for cognition, and people with a low need to evaluate are more likely to be persuaded than people with a high need to evaluate.

In the current research, we examined how self-monitoring, need for cognition, and need to evaluate moderated reciprocity. We hypothesized that high self-monitors would have higher reciprocity rates than low self monitors, people with a high need for cognition would have higher reciprocity rates than people with a low need for cognition, and people with a low need to evaluate would have higher reciprocity rates than people with a high need to evaluate. The results followed a similar trend; however, the differences were not significant and not conclusive.

Limitations

One limitation of this study is that reciprocity was measured only in one way. Reciprocity can occur in many ways and our lack of findings could be due to the fact that we asked participants to write short responses instead of showing reciprocity in another way. It is rare that people show reciprocity by answering questions about mundane things, such as what they think about an office chair. Another way to show reciprocity may be to ask participants to donate to a charity. Instead of using amount of words as the reciprocity rate, the amount of money could be used. This might be better in that it reflects a real world application of reciprocity and so people may be more predisposed to show reciprocity.

Another limitation could be that participants in the “hard” and “soft” sell conditions were hypothesis guessing about why they were receiving M&Ms. A few times, at the end of the experiment, participants in the “soft sell” and “hard sell” conditions asked if the M&Ms were part of the experiment. However, this was not systematically coded for the individual
participants. Participants could have altered their behavior if they assumed that the M&Ms were a covert means to motivate them to answer the additional questionnaire. Therefore, they may have put similar effort into answering the questionnaire regardless of the condition and independent of if they received M&Ms or not. One way to guard against this effect and to determine extraneous variables would be to ask participants what they thought the study was about after it was completed using a “funneled debriefing” (eg. Ciani & Sheldon, 2010). Another way to minimize this problem would be to include only introductory psychology students or non-psychology majors to participate in this study as opposed to upper level psychology students as a way to keep participants blind regarding the purpose of the study. One way to avoid hypothesis guessing is to change the gift. Instead of using M&Ms we could give out a Union College flash drive. These are free and available in the library. It is a useful gift that may not seem as arbitrary as the M&M’s, especially if participants were told that the library was giving them to the psychology department. This may reduce hypothesis guessing and lead to more significant results.

Another limitation of the current research is that there were not enough participants. There were trends in the research; however, they were not significant. If there were more participants, there may have been significant results. One way to counter this problem is if we continued to run the study to determine if the lack of significance was due to a lack of a large participant group.

Another limitation was that it was not a double blind study. This could have unconsciously influenced the experimenter. If I was more cheerful and nicer to the participants in the “hard sell” condition rather than the control condition, this could have led
to the result that participants in the “hard sell” condition were more likely to reciprocate than those in the control condition. To control for this, we would need a second experimenter to run the trials who did not know the hypothesis of the study.

**Future Research**

One interesting way to proceed with future research would be to test this theory with different personality traits. Although we did not find a difference in reciprocity rates for the personality traits that we chose for this experiment, there may be other traits that moderate compliance. One trait that might be important to research is a person’s consideration of future consequences. Strathman, Boning, Lecher, and Baker (1994) defined consideration of future consequences as the amount to which a person considers and evaluates the possible short term and long term consequences of his/her actions. Shakarchi and Haugtvedt (2004) found that there was a significant correlation between consideration of future consequences and resistance to persuasion, need for cognition, and need to evaluate. Because we found a trend between self-monitoring, need for cognition and need to evaluate and reciprocity, there may be a trend between reciprocity and consideration of future consequences (CFC). I would hypothesize that people higher in CFC would show a significantly greater amount of reciprocity in the “Soft Sell” condition. There would be no difference in the “Hard Sell” condition because all people are explicitly prompted to show reciprocity. There may be a significant difference in the Control condition as well, with people higher in CFC showing more reciprocity than those lower in CFC. However, this difference would not be as large as with participants in the “Soft Sell” condition because no gift was given to prompt reciprocity.
An additional possibility to continue with future research is to change the source likeability of the experimenter. Reinhard and Messner (2009) found that source likability moderated persuasion. If the additional questionnaire was presented as an additional study from an experimenter along with a short piece of information about the experimenter, the experimenter’s likability could be controlled. We could determine if more likeable rather than less likeable experimenters would be more likely to elicit the interaction we hoped to find between personality and reciprocity.

Conclusion

There is a great amount of research pertaining to personality traits and compliance and our research tried to demonstrate a link between the two. Although I was not able to demonstrate this link, I was able to lay the groundwork for future research in which this link may be determined. Future research could examine other personality traits and their effect on compliance and reciprocity as well as utilizing other research designs to examine such behavior. Other participant subject pools could also be used to assist with more generalizable results. This research, if continued, could lead to statistically significant results that could direct the way to future research about how personality moderates reciprocity.
References


Shakarchi, R. J., & Haugtvedt, C. P. (2004). Differentiating Individual Differences in Resistance to Persuasion. In E. S. Knowles, J. A. Linn, E. S. Knowles, J. A. Linn (Eds.), *Resistance and persuasion* (pp. 105-113)


Figure 1: The interaction between condition and need for cognition (.00 = low need for cognition and 1.00 = high need for cognition)
Figure 2: The interaction between condition and self-monitoring (.00 = low self-monitors, 1.00 = high self-monitors)
Figure 3: The interaction between condition and need to evaluate (.00 = low need to evaluate and 1.00 = high need to evaluate)