

CONFIDENT BASTARDS:  
THE INFLUENCE OF ADVISOR CONFIDENCE AND LIKEABILITY ON ADVICE  
TAKING

A Thesis  
by  
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Submitted to the Graduate School  
at Appalachian State University  
in partial fulfillment of the requirements for the degree of  
PSYCHOLOGY MASTER OF ARTS

July 2020  
Department of Psychology

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## **Abstract**

### CONFIDENT BASTARDS: THE INFLUENCE OF ADVISOR CONFIDENCE AND LIKEABILITY ON ADVICE TAKING

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Advice taking has been robustly researched in many different areas. The previous literature shows multiple factors can affect the likelihood of someone taking advice. For example, people are typically more likely to follow advice when the advice is expressed confidently rather than in an unsure manner (Gaertig & Simmons, 2018). Additionally, when people report a higher liking of the advice giver, they are more likely to follow the advice (Bo Feng & MacGeorge, 2010). Given what is known about the influence of confidence and likeability on advice taking, the current study combined these factors to examine whether the influence of confidence depends on how much one likes the advisor. Advisor likeability was manipulated by having the participant read a passage they believed an advisor wrote depicting the advisor as either likeable or unlikeable. Next, participants received advice expressed confidently or in an unsure manner from this advisor regarding a number of trivia questions. Lastly, participants answered the trivia questions. Participants were more likely to

take the advice expressed confidently as compared to in an unsure manner. The advisors' likeability did not significantly impact levels of advice taking, and contrary to my primary prediction, the influence of confidence was similar regardless of whether the advisor was liked or disliked.

## **Acknowledgments**

First, I would like to thank my mentor, Dr. Andrew Smith, for not only my academic growth, but also for my growth as an individual over the last 6 years. Dr. Smith has served as an outstanding role model. His continuous encouragement, support, and passion for his students and job has taught me ways to persevere and grow. I have always had issues with being confident in my abilities to succeed, and Dr. Smith, as well as Dr. Twila Wingrove, taught me of the dangers of negative self-talk, believed in me when I did not believe in myself, and most importantly, fostered the level of confidence that I now have in the work I have done and will continue to do. Furthermore, I want to thank Dr. Doris Bazzini and Dr. Andrew Monroe for serving on the committee for this thesis and for always providing productive and necessary feedback throughout this project. I would also like to thank Lucinda O. Payne for the inspiration she instilled in me sophomore year of my undergraduate career. The passion she has for her job and students immediately sparked my interest in collegiate level teaching. I will forever be thankful for her encouragement, support, and smiles throughout the last 5 years. Lastly, I would like to thank my family and friends for being encouraging and supportive. Without you all, my success in graduate school and on this project would have been much more difficult, if not impossible.

## **Dedication**

I dedicate this thesis to my family, the Appalachian State University's 2018 Experimental Psychology cohort, as well as to my advisor, Andrew.

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Confident Bastards:

The Influence of Advisor Confidence and Likeability on Advice Taking

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### Abstract

Advice taking has been robustly researched in many different areas. The previous literature shows multiple factors can affect the likelihood of someone taking advice. For example, people are typically more likely to follow advice when the advice is expressed confidently rather than in an unsure manner (Gaertig & Simmons, 2018). Additionally, when people report a higher liking of the advice giver, they are more likely to follow the advice (Bo Feng & MacGeorge, 2010). Given what is known about the influence of confidence and likeability on advice taking, the current study combined these factors to examine whether the influence of confidence depends on how much one likes the advisor. Advisor likeability was manipulated by having the participant read a passage they believed an advisor wrote depicting the advisor as either likeable or unlikeable. Next, participants received advice expressed confidently or in an unsure manner from this advisor regarding a number of trivia questions. Lastly, participants answered the trivia questions. Participants were more likely to take the advice expressed confidently as compared to in an unsure manner. The advisors' likeability did not significantly impact levels of advice taking, and contrary to my primary prediction, the influence of confidence was similar regardless of whether the advisor was liked or disliked.

### Confident Bastards:

#### The Influence of Advisor Confidence and Likeability on Advice Taking

People are faced with many decisions and judgments every day. People often make these decisions on their own, perhaps because they feel confident in their decision or because the decision is not particularly important. However, there are many situations in which they may seek out and use advice given from other people. This study examined factors that affect whether people use advice to make their decision. Specifically, I examined the influence of advisor confidence and likeability on advice taking.

#### **Why Take Advice?**

Before describing factors that influence advice taking, it is important to understand why people might take advice at all. Harvey and Fischer (1997) outlined three primary reasons: to receive help, to improve judgments, and to share responsibility for potential outcomes. Consider a situation in which George is completely indecisive. In this case, George may take advice to help him overcome his indecisiveness and make a decision. Regardless of whether the advice led to a good decision, the advice at least helped George make a decision. In other cases, George may have some knowledge, but might heed advice in order to improve his judgments decisions (e.g., he knows his car is worth more than \$5,000, but does not know exactly how much more he should ask when selling it). Lastly, when decisions are of great importance, George may take advice from outside sources, regardless of his expertise, in an attempt to disperse responsibility for the possible consequences. Although the reasons for taking advice appear to be relatively straightforward, there are multiple factors that can influence whether or not one takes advice from others.

#### **Factors That Influence Advice Taking**

Research examining the factors that predict whether people actually take others' advice include features of the person receiving advice (e.g., pre-existing knowledge, personal opinions, and current emotions), features of the person giving the advice (e.g. level of expertise, confidence, knowledge, and likeability), and situational features surrounding the decision being made (e.g., level of urgency and importance). With regard to the impact of decision-makers' features on advice taking, Yaniv (2004) found that having less pre-existing knowledge led to greater taking of advice. Contrastingly, subjects' current emotions—for example feeling positively about themselves and negatively of others—make people less likely to take advice compared to people who are primed to feel negatively about themselves and positively of others (de Hooge, Verlegh, & Tzioti, 2014).

Many decisions people make throughout each day result in miniscule consequences. For example, deciding which shirt to wear while lounging around the house most likely has very little meaning; however, deciding which shirt to wear for a first date may come with greater importance. Research examining the situational factors influencing advice taking found that more important decisions (e.g., when money was on the line) compared to when advice comes at no cost (Snizek, Schrah, & Dalal, 2004). Similarly, Gino (2008) demonstrated that people are more likely to take advice when they pay for it (e.g., paying for advice from a therapist or financial advisor) compared to when it's free. In her study, Gino (2008) had participants answer questions regarding United States history and provided them with the opportunity to receive either free or paid advice. In either case, participants received identical advice, and participants received no information about the advisor (e.g., their level of expertise). Results showed that paid advice led to significantly higher advice taking than did free advice.

Although the importance of a decision (e.g., potential financial incentives) influences advice taking, the general consequences (positive or negative) of the decision also seem to influence the likelihood of one taking advice. In one study examining this situational factor, Harvey and Fischer (1997) told participants in the high-criticality condition that the decision being made was extremely important because it could prevent a company bankruptcy, while those in the low-criticality condition were told the decision was just a part of everyday business. When the decision had a potentially large impact people were more likely to follow others' advice compared to when the decisions were mundane.

Regardless of the importance, there are times when people must make decisions quickly; the amount of time allowed to make a judgment or decision can also impact whether or not one takes advice. Johnson and Johnson (2017) examined the impact of time pressure on advice taking by having participants recommend a business decision while acting as the Vice President of the company. Some participants were told that the decision must be made within an hour, while the other participants were told they had a comfortable amount of time to make the decision. Those that had little time to make their judgment took advice less than those with no time pressure (Johnson & Johnson, 2017). It seems that people may be reluctant to take advice when there are lessened opportunities to evaluate the quality of advice and the credibility of the advisor.

As noted earlier, in addition to the characteristics of the decision maker and the situation, there are many features of the person giving advice that contributes to whether or not their advice is followed. When someone does not know what to do in a given situation and they perceive the person giving them advice as an expert in that area, not surprisingly, they are more likely to take that advice (Bo Feng & MacGeorge, 2010; Bonaccio & Dalal,

2006; Harvey & Fischer, 1997; Rakoczy, Ehrling, Harris, & Schultze, 2015; Sniezek & Van Swol, 2001).

Whereas there are several factors that influence the likelihood of advice taking, most relevant to the proposed study are two specific advisor characteristics: confidence and likability. The way in which an advisor presents information, particularly with or without expressed confidence, has been shown to impact whether or not one takes advice (Gaertig & Simmons, 2018). Furthermore, whether or not one takes advice can also depend on how much he or she likes the advisor (Bo Feng & MacGeorge, 2010). The current study investigated the potential interaction between confidence and likeability by combining the two factors and examining their combined influence on advice taking.

### **Advisor Confidence**

There have been a number of studies examining the influence of advisor confidence on advice taking. These studies demonstrate that people are more likely to follow advice when delivered by someone expressing confidence (e.g., Bang et al., 2004; Gaertig & Simmons, 2018; Price & Stone, 2004; Sniezek & Van Swol, 2001). In one study, Price and Stone (2004) presented participants with two fictional financial advisors' advice regarding potential stock increases. One advisor was moderately confident in their predictions whereas the other advisor was very confident in their predictions. After evaluating the advisors' investing advice, participants were asked to indicate which of the two financial advisors they would prefer to hire. Across experiments, people typically preferred the very confident advisor as opposed to the more moderate advisor. This suggests that people use advisor confidence, at least in part, as a cue in choosing the most effective source of advice.

Recent research extended these findings by manipulating aspects of advice and examining whether or not advisor confidence overrules these aspects. For example, Gaertig and Simmons (2018) had participants predict the outcomes of Major League Baseball games. The researchers manipulated two related, but distinct aspects of the advice: certainty and confidence. Specifically, before making a prediction, participants were presented with either certain or uncertain advice (e.g., 100% vs. 57% chance of Chicago Cubs winning the game) delivered by either a confident or an unsure advisor. Although confidence and certainty are related, it is possible to be confident in uncertain advice (e.g., a meteorologist being 100% confident of a 50% chance of rain). This implies a level of uncertainty because of the chance of rain while still presenting confidence. Participants in the certain condition were presented with advice expressing complete certainty (e.g., “The Chicago Cubs will win this game.”) whereas participants in the uncertain condition were presented with advice expressing uncertainty about the outcome (e.g., “There is about a 57% chance that the Chicago Cubs will win this game.”). Confidence was manipulated by preceding the advice with either an unsure disclaimer (e.g., “I am not sure, but I think that the Chicago Cubs will win the game.”) or a confident statement (e.g., “I am very confident that the Chicago Cubs will win the game.”). The researchers found that the certainty in the outcome did not influence participants’ predictions. However, participants followed advice significantly more when it was expressed confidently. This research suggests that confidence in presenting the advice is important, but the advice can contain elements of uncertainty and still be influential.

People recognize that bad advice can be presented confidently, but people typically use the confidence of the advisor as a cue in determining the advice givers’ knowledge, correctness, and competence. For example, Price and Stone (2004) found that people who



express advice confidently, as opposed to in an unsure manner, are perceived as more knowledgeable, and this leads to an assumption that the more confident an advisor is, the more likely he or she is to be correct in their judgments. This confidence heuristic (i.e., assuming that confidence is a cue of knowledge) leads people to be more swayed by confidently expressed advice (Price & Stone, 2004).

Although confidence has mostly been viewed positively, some research suggests that this aspect of the advisor could also lead to the formation of negative impressions of the advisor. For example, Milyavsky, Kruglanski, Chernikova, and Noa (2017) found that negative impressions were formed for people that stated a confident opinion in a rude manner. Participants were presented with a medical counseling situation in which a surgeon discounted either a mother's opinion or a chief surgeon's opinion on incision lines for a liver transplant surgery. The manner of which the surgeon dismissed the advice was manipulated to be rude, polite, or neutral before participants rated their perceptions of the surgeon. The rude dismissal contained a belittling and disparaging statement (e.g., "You don't know what you are talking about, I think that the incision lines are fine."). Though the surgeon's statement is in fact rude, it also asserts strong confidence in their opinion by disregarding the opinion of others in making a decision. Even when the surgeon was considered an expert in the situation of dismissing a mother's opinion, their disparagement and confidence led to increased perceptions of arrogance. This suggests that in some circumstances (e.g., disparagement plus confidence), confidence can lead to negative perceptions even for those with expertise.

### **Advisor Likeability**

In addition to the way the advice is presented, the feelings the decision maker has toward the advisor can also influence advice taking. Research examining the impact of advisor likeability on advice taking shows that people are more likely to follow advice when they report liking the advisor more (Bo Feng & MacGeorge, 2010). Specifically, the Bo Feng and MacGeorge asked participants to recall a recent conversation where they discussed an upsetting problem with someone in their life and this person gave them advice on how to respond to the problem. Following this, participants rated how much they liked the advice giver and reported whether they intended to follow the advice. The results revealed that people followed advice more when they reported a higher liking of the advice giver. That being said, given that this study is strictly correlational, it is possible that factors other than the advisor's likeability produced this effect. For example, people may have liked the advisor more when the advice was in their favor. In other words, it is possible that the liking of the advice drives the liking of the advisor and levels of advice taking.

It seems that there are not many studies directly examining the influence of advisor likeability on advice taking, but there is related research in persuasion. For example, by increasing or decreasing the perceived similarity between the advisor and the judge, researchers have been able to induce likeability within the lab. For example, Jiang, Hoegg, Dahl, and Chattopadhyay (2010) told participants that the university recreation center was promoting a new personal training program and needed student's feedback. The researchers gave participants an information brochure about the program and the trainer. The birthday of the trainer was manipulated to either match the participant (similar condition) or to be different from the participant. After reading the information about the program and trainer, a confederate posing as the trainer came in to explain the program through a ten-minute

scripted speech. Participants with shared birthdays reported greater feeling of connectedness with the trainer, more favorable attitudes toward the program, and were more persuaded by the trainer to enroll in the program than those with different birthdays.

One explanation for these findings is that people often align their opinions, attitudes, and decisions with people they perceive as similar and likeable while discounting the opinions of dissimilar others (Burger, Messian, Patel, del Prado, & Anderson, 2004; Gino, Shang, & Carson, 2009). Furthering this, Evans (1963) found that real similarities between a salesperson and a prospect predicted a greater likelihood for a sale. This held true for similarities between age, height, income, religion, education, politics, and smoking habits. It is important to note the difference between advice taking and persuasion by homing in on the goal of the communicator. Persuasion is the act of a communicator attempting to influence or change a person's attitudes or thoughts (Davidson, 2008) so that they make the decision most desired by the communicator, regardless of the accuracy of that decision. When giving advice, the communicator, or advisor, is providing information that they believe will lead to a more positive, or most accurate, judgment for the person.

Previous research has also manipulated other factors that induce likeability. For example, Reinhard, Messner, and Sporer (2006) had participants watch a home shopping commercial starring either an attractive or unattractive actor for an Apple computer. The attractive actor was rated as significantly more likeable than the unattractive actor. Additionally, participants in the attractive condition reported more positive attitudes toward the product and higher intentions to buy the product than those in the unattractive condition.

Furthering work on perceptions of likeability, Reinhard and Messner (2009) had participants view an advertisement for a camera before providing product judgments.

Likeability was manipulated by having participants read a supposed radio interview with the person endorsing the product in the advertisement. The endorser either bragged about his new and expensive BMW (unlikeable condition) or talked about a new bicycle (likeable condition). Serving as a control condition, some participants were not given an interview transcript. Those in the likeable condition and the control condition reported greater liking of the endorser, more positive attitudes toward the camera, and higher intentions to purchase than those in the unlikeable condition. These findings each suggest that perceived source likeability influences persuasion effectiveness.

The existing research on advisor likeability and advice taking has been mostly correlational. This lack of experimental manipulation makes it difficult to determine if other factors may be driving the effect and in turn creating a greater liking of the advisor. The current study is, as far as I know, the first combined manipulation of advisor confidence and likeability.

### **Current Study**

The current study examined the influence of advisor likeability and confidence on advice taking. Past work suggests that likeability and expressed confidence influence advice taking independently (Bo Feng & MacGeorge, 2010; Gaertig & Simmons, 2018), but what might happen if a disliked advisor expressed advice confidently? I experimentally manipulated both factors to determine if the influence of confidence on advice taking depends on how much one likes the advisor.

In this study, participants answered a number of trivia questions after being provided with advice regarding the questions. To manipulate advisor confidence, advice was either expressed confidently or in an unsure manner (e.g., “I’m confident that...” vs. “I’m not really

sure...”). Liking was manipulated by having the participant read a passage, presumably written by the advice-giver that depicted them as either likeable or unlikeable. Following previous research findings, my first prediction was that participants would take advice more when it was expressed confidently as opposed to when it was expressed in an unsure manner. Also stemming from previous research findings, my second prediction was that advice would be taken more when it comes from a likeable source as opposed to an unlikeable source. My third prediction was that the influence of confidence would depend on whether an advisor is liked or not. Specifically, when the advisor was liked, confidently delivered advice would be taken more than unsure advice. However, when an advisor was unlikeable, confident advice would result in less advice taking as compared to unsure advice. This study’s likeability manipulation passage depicts belittling and disparagement, and as previously mentioned, confidence combined with disparagement can lead to increased negative perceptions of an advisor (Milyavsky et al., 2017). Because of this, my primary prediction was that this negative perception would cause greater dislike and lead to less advice taking.

## **Method**

### **Participants**

Participants were recruited through the Appalachian State University Psychology Subject Pool. This pool consists of undergraduate students enrolled in a Psychology course who have chosen to participate in research to fulfill an Experiential Learning Credit (ELC) for the Psychology course. I had a target sample size of 320 undergraduate students derived from a statistical power analysis (Faul, Erdfelder, Lang, & Buchner, 2007) indicating an 80% chance of detecting an interaction with a small/medium effect size ( $f = .16$ ,  $\alpha = .05$ ,  $\beta = .20$ ), and I was able to recruit 357 participants in total (78.93% women, 19.94% men, and 0.56%

were transgender). Participants' average age was 19.5 years. This study was initially conducted by having participants come to the research lab to complete the study. However, due to the COVID-19 pandemic, all university classes and studies were transitioned to online formats during data collection. Therefore, the study was transitioned to an online study to complete data collection. There were 166 participants who completed the study in the lab and 191 participants who completed the study online.

Appalachian State University's Institutional Review Board (IRB) determined this study to be exempt from IRB oversight (see Appendix A).

### **Design**

The research methodology employed a 2 (advisor likeability: likeable vs. unlikeable) x 2 (advisor confidence: confident vs. unsure) between-subjects design.

### **Procedure**

Participants read through an informed consent document (see Appendix B) that indicated the study would take no longer than 30 minutes and would satisfy 1 ELC. Following this, instructions were presented stating that they were participating in a study examining how people use information coming from another person. The instructions then informed participants that, in a previous part of the study, people were asked to provide advice regarding a number of trivia questions. Although the information about a previous part of the study was fabricated, it served as a cover story to allow for the advisor likeability manipulation. Participants were told that they were randomly paired with one of the previous participants. In this thesis, this partner will be referred to as the "advisor".

The next section of the study randomly assigned participants to either the likeable advisor condition or the unlikeable advisor condition. Likeability was manipulated by having

the participants read a passage they believe their advisor wrote. There were two passages that were pretested to depict the advisor as either likeable or unlikeable (see Appendix C).

Participants were told that in the previous part of the study, advisors were asked to write about something that happened in the past two weeks that they were proud of. Participants were instructed to use this passage to learn a bit more about their advisor.

The instructions then told participants that they would be asked to provide an initial answer to the trivia question, receive advice from the advisor, and then provide a final estimate to the same trivia question. The trivia questions (see Appendix D for complete list of questions and answers) were derived from studies by Kausel, Culbertson, Leiva, Slaughter, and Jackson (2015). Importantly, to help ensure that participants understood the advice was coming from the same person responsible for writing the passage, a random set of initials was assigned to the advisor. For example, if participants were told that they have been paired with Advisor H.O., the following advice statements all began with “Advisor H.O.:...”.

Participants were then randomly assigned to either the confident advisor condition or the unsure advisor condition. Those in the confident advisor condition read advice framed confidently (e.g., “I’m virtually certain that the African elephants can live to 80 years old, so you should put that.”); whereas, advice for those in the unsure advisor condition was presented in an unsure manner (e.g., “I’m really not certain, but you should maybe go with 80 years old.”; see Appendix E for complete list of advice). Participants were then asked to provide a final estimate to the same trivia question, and this process (initial estimate, receive advice, final estimate) was completed for each of the three trivia questions.

Once an initial and final estimate was provided for each trivia question, participants provided a self-report of how knowledgeable, confident, trustworthy, likeable, helpful, and

similar their advisor seemed on a 7-point scale (see Appendix F for complete list of questions). Lastly, participants answered demographic questions (e.g., age and gender), received debriefing and credit (1 ELC) for participation.

### **Pilot Studies**

I conducted two pilot studies to ensure that the manipulations of advisor confidence and likeability would be effective. In the first pilot study, 160 Appalachian State University undergraduates participated in an advice taking study. Half of the participants received confidently expressed advice and half received unsure advice (see Appendix E). Later, the participants were asked to indicate how confident the advisor seemed on a 1 (*not at all confident*) to 7 (*extremely confident*) response scale. As expected, participants who received confident advice ( $M = 5.03$ ,  $SD = 1.52$ ) rated the advisors' confidence significantly higher than those in the unsure condition ( $M = 2.47$ ,  $SD = 1.36$ ),  $t(158) = -11.22$ ,  $p < .001$ ,  $d = 1.77$ .

In the second pilot study, students in a social psychology lab course at Appalachian State University recruited 149 friends and family members to participate in an advice taking study. The participants read a passage presumably written by the advisor (see Appendix C) that presented the advisor in a likeable or unlikeable way. Participants later indicated how much they liked the advisor on a 1 (*not at all*) to 7 (*extremely*) response scale. Participants in the likeable condition ( $M = 4.85$ ,  $SD = 1.46$ ) rated the advisors' likeability significantly higher than those in the unlikeable condition ( $M = 3.74$ ,  $SD = 1.64$ ),  $t(147) = -4.37$ ,  $p < .001$ ,  $d = 0.72$ . In short, both pilot studies suggest that the manipulations of confidence and likeability would be effective.

## **Results**

### **Manipulation Checks**



In order to examine the effectiveness of the confidence manipulation in the current study, I conducted a 2 (advisor likeability: likeable vs. unlikeable) x 2 (advisor confidence: confident vs. unsure) ANOVA on perceived advisor confidence ratings (see Figure 1). As expected, participants who received confident advice ( $M = 5.48$ ,  $SD = 1.63$ ) rated the advisors' confidence significantly higher than those in the unsure condition ( $M = 2.39$ ,  $SD = 1.43$ ),  $F(1, 353) = 366.36$ ,  $p < .001$ ,  $\eta_p^2 = .509$ . There was not a significant main effect of likeability,  $F(1, 353) = 0.65$ ,  $p = .419$ ,  $\eta_p^2 = .002$ , indicating that likeability conditions did not influence advisor confidence ratings. There was no significant interaction between confidence condition and likeability conditions,  $F(1, 353) = 0.90$ ,  $p = .343$ ,  $\eta_p^2 = .003$ .

To examine the effectiveness of the likeability manipulation, I conducted a 2 (advisor likeability: likeable vs. unlikeable) x 2 (advisor confidence: confident vs. unsure) ANOVA on perceived advisor likeability ratings (see Figure 2). As expected, participants in the likeable condition ( $M = 3.99$ ,  $SD = 1.26$ ) rated the advisors' likeability significantly higher than those in the unlikeable condition ( $M = 3.44$ ,  $SD = 1.35$ ),  $F(1, 353) = 18.03$ ,  $p < .001$ ,  $\eta_p^2 = .049$ . This analysis also revealed a significant interaction between confidence condition and likeability condition on perceived likeability scores,  $F(1, 353) = 9.59$ ,  $p = .002$ ,  $\eta_p^2 = .026$ . There was a larger difference in perceived likeability between the likeable and unlikeable advisor in the confident condition relative to the unsure condition. There was not a significant main effect of confidence,  $F(1, 353) = 0.02$ ,  $p = .889$ ,  $\eta_p^2 = .000$ , indicating that confidence did not influence advisor likeability ratings.

To ensure that the confidence and likeability manipulations were effective for the online and in-lab participants, I first conducted a 2 (advisor confidence: confident vs. unsure)

x 2 (sample: online vs. in-lab) ANOVA on participants' ratings of the advisor's confidence.

There was not a significant advisor confidence x sample interact,  $F(1, 353) = 0.84, p = .359, \eta_p^2 = .002$ , indicating that the influence of the confidence manipulation was similarly

effective for both samples. Next, I conducted a 2 (advisor likeability: likeable vs. unlikeable)

x 2 (sample: online vs. in-lab) ANOVA on participants' ratings of the advisor's likeability.

There was not a significant advisor likeability x sample interaction,  $F(1, 353) = 0.08, p$

$= .773, \eta_p^2 = .000$ , again suggesting the likeability manipulation was similarly effective for

both samples.

### **Test of Hypotheses**

To test my hypotheses, I first calculated participants' weight of advice (WOA) scores using the formula:  $WOA = \frac{|\text{initial estimate} - \text{final estimate}|}{|\text{initial estimate} - \text{advice value}|}$ .

This measure has been used in a number of previous studies on advice taking (e.g., Gino & Moore, 2007; Harvey & Fischer, 1997; Yaniv, 2004). If a participant ignored the advice

completely and gave the exact same initial and final estimate, this participant would have a

WOA score of 0; however, if a participant fully took advice (i.e., their final estimate was

equal to the advice), this participant's WOA score would be 1. That is, higher WOA values

indicate greater advice taking. In line with the previous research using WOA, if a

participants' final estimate did not fall between the advice value and initial estimate

(producing a  $WOA > 1$ ), their estimate was dropped from analysis. Additionally, if the initial

value reported was the same as the advice value presented, the equation produces an error

(the denominator is 0) so the estimate was dropped. I calculated the WOA for each question,

and then averaged across each question to get an average WOA score for each participant.

Overall, 20 WOA scores (1.86% of the 1074 calculated for all participants) were excluded

because they were greater than 1 and 40 WOA scores (3.72%) were dropped because a participant's estimate was the same as the advice. However, no participant had all three WOA scores excluded, so all participants were included in the analyses.

Next, I conducted a 2 (advisor likeability: likeable vs. unlikeable) x 2 (advisor confidence: confident vs. unsure) factorial ANOVA on participants' average WOA (see Figure 3). There was a significant main effect of confidence on advice taking,  $F(1, 353) = 12.81, p < .001, \eta_p^2 = .035$ . Participants took advice significantly more when it was expressed in a confident manner as opposed to an unsure manner. There was not a significant main effect of likeability on advice taking,  $F(1, 353) = .16, p = .693, \eta_p^2 = .000$ . The advisor's likeability did not influence levels of advice taking. To test the third hypothesis that confident advice from an unlikeable advisor would lead to less advice taking, I examined the interaction between confidence and likeability and found that it was not significant,  $F(1, 353) = .01, p = .932, \eta_p^2 = .000$ . My third hypothesis was not supported, suggesting that the influence of advisor confidence on advice taking does not depend on whether or not one likes the advisor.

### **Exploratory Analysis**

At the end of the study, each participant provided a self-report of how knowledgeable, confident, trustworthy, likeable, helpful, and similar their advisor seemed on a 7-point scale (see Appendix F for complete list of questions). Exploratory analyses examined correlations between participants' perceptions of the advisor and WOA values. Some noteworthy relationships are described below, but see Table 1 for the complete correlation matrix. Significantly positive correlations were found between WOA scores and each of the six advisor characteristics. In other words, participants were more likely to take their advisor's

advice when they rated the advisor as more knowledgeable, confident, trustworthy, likeable, helpful, and similar to themselves.

Perhaps most interesting is the relationship between perceived likeability and WOA scores. Participants took advice more when they reported greater liking of the advisor,  $r(355) = .25, p < .001$ . This finding seems to contradict the finding that the likeability manipulation successfully influenced how much people reported liking the advisor, but people did not take the advice from the likeable advisor more than the unlikeable advisor.

Lastly, I examined whether the influence of the confidence condition and the lack of an influence of the likeability condition on participants' WOA scores varied across the two samples. Specifically, I conducted a 2 (confidence) x 2 (likeability) x 2 (sample: in-lab vs. online) ANOVA on participants average WOA score. As before, there was a significant main effect of confidence on WOA scores,  $F(1, 353) = 12.37, p < .001, \eta_p^2 = .034$ , no main effect of likeability,  $F(1, 353) = .18, p = .674, \eta_p^2 = .001$ , and no significant interaction between confidence and likeability,  $F(1, 353) = .03, p = .873, \eta_p^2 = .000$ . There was no main effect of sample on WOA scores,  $F(1, 353) = .68, p = .409, \eta_p^2 = .002$ , indicating that average WOA scores did not significantly differ between the in-lab sample and the online sample. There was not a significant interaction between confidence and sample on average WOA scores,  $F(1, 353) = 1.00, p = .318, \eta_p^2 = .003$ . Interestingly, there was a significant interaction between liking condition and study type,  $F(1, 353) = 5.00, p = .026, \eta_p^2 = .014$ . Participants who completed the study in the lab took advice more from a likeable advisor than an unlikeable advisor, whereas the participants who completed the study online took the advice from the unlikeable advisor slightly more than the likeable advisor (see Figure 4). Lastly, there was not a significant three-way interaction,  $F(1, 353) = 1.98, p = .160, \eta_p^2 = .006$ .

### **Discussion**

This study investigated the influence of advisor likeability and confidence on advice taking. The first prediction that confident advice would lead to greater advice taking was supported. Participants in the confident condition took their advisor's advice more than those in the unsure condition. The second hypothesis, by contrast, was not supported. Participants did not take advice more from a likeable advisor than an unlikeable advisor. The novel hypothesis of this thesis—that confident advice from an unlikeable advisor would lead to less advice taking than unsure advice from an unlikeable advisor—was also not supported. From this study alone, it seems that confident advice leads to greater advice taking, and this influence does not necessarily depend on how much one likes the advisor.

#### **How Advisor Confidence Influenced Advice Taking**

As noted earlier, there are many studies that have examined the influence of advisor confidence on advice taking (e.g., Bang et al., 2004; Gaertig & Simmons, 2018; Price & Stone, 2004; Sniezek & Van Swol, 2001). These studies have consistently found that people are more likely to follow advice when it is expressed confidently as opposed to an unsure manner. The current study replicated these findings and provides additional support to the literature examining confidence and advice taking. These findings are also in line with the idea of a confidence heuristic (Price & Stone, 2004). That is, the advisor's confidence may have served as a cue for the advisor's knowledge, competence, and correctness and in turn led to greater advice taking. In support of this explanation, participants in the confident condition, compared to those in the unsure condition, rated the advisor as more knowledgeable, trustworthy, and helpful.

The way in which advice was presented in this study also serves as an advancement in the advice taking literature. The vast majority of advice taking research has utilized advice that is more of a stated opinion than an explicit piece of advice. For example, in the studies conducted by Gaertig and Simmons (2018), the advisors simply stated their opinions (e.g., “I’m confident the Chicago Bulls will win”). Stating an opinion does not necessarily constitute as advice. In the current study, the advisor gave explicit advice (e.g., “I’m virtually certain that the African elephant can live to 80 years old, so you should put that.”). The fact that the findings of the current study were similar to previous research strengthens the claim that confident advice leads to greater advice taking.

### **The (Lack of an) Impact of Advisor Likeability on Advice Taking**

Participants were just as likely to take advice from the unlikeable advisor as they were from the likeable advisor. This finding is in contrast to what other research has previously found. For example, as noted earlier, Bo Feng and MacGeorge (2010) found that people were more likely to take advice from advisors they liked relative to advisors they did not like. The lack of an effect of likeability in the current study does not appear to be due to failure of the likability manipulation given that participants who read the passage from the likeable advisor did rate that individual higher on likeability than the unlikeable advisor. Although participants in the likeable condition did not take advice more than those in the unlikeable condition, participants took advice more from advisors if they found them to be more likable. Of course, this relationship is strictly correlational. Therefore, it is possible that the relationship between advice taking and perceived likeability was driven by a third variable. Or, as previously noted, it is possible that this study’s likeability manipulation—although successful—was not strong enough to influence levels of advice taking.

Serving as another advancement in the literature, it is worth noting that I experimentally manipulated likeability while the aforementioned previous research on advice taking and likeability has been correlational (Bo Feng & MacGeorge, 2010). Bo Feng and MacGeorge had participants recall a recent conversation where they discussed an upsetting problem with someone and this person gave them advice on how to react to the situation. The participants were then asked to rate how much they liked the advisor and whether or not they intended to follow the advice. Participants were more likely to follow the advice when they reported greater liking of the advisor. Due to the recollection aspect of the study, it is possible that recollection or memory biases influenced the findings. Because I did not find an effect of likeability on advice taking, it is possible that findings from correlational designs are not as strong as they might seem to be.

### **Does the Influence of Advisor Confidence Depend on Likeability**

As previously noted, it is possible that confidence from an unlikeable advisor could be viewed negatively and result in less advice taking (Milyavsky et al., 2017); however, in the current study, confident advice was taken more than unsure advice, regardless of likeability. It seems as though the influence of advisor confidence on advice taking does not depend on likeability. In other words, when advice is expressed confidently, people are more likely to take the advice, regardless of the advisor's perceived likeability.

### **Other Factors Associated with Advice Taking**

As previously noted, due to COVID-19, all university classes and studies were transitioned to online formats during data collection. Therefore, serving as an exploratory analysis, I examined potential differences between the in-lab and online version of this study. The confidence manipulation had a similar impact on advice taking for both the online and

in-lab participants. While the liking manipulation was equally successful for both the in-lab and online study, participants in the online study took advice more from the unlikeable advisor while participants in the in-lab study took advice more from the likeable advisor. One possibility for this finding could be that participants were more focused and paid greater attention to the passage that served as the liking manipulation. Those who participated online may not have read the passage as carefully and/or viewed it as an important aspect of the study and were therefore less impacted by it. Although possible, this seems unlikely because the liking manipulation produced a similar effect on the perceived likeability judgments for both the online and in-lab version of the study.

Lastly, another interesting exploratory finding was that the likeability manipulation was stronger for those in the high confidence condition compared to the low confidence condition. In other words, participants' in the high confidence condition reported stronger dislike of the unlikeable advisor and greater liking of the likeable advisor. This finding may support the "confident bastards" idea; confidence seems to be valuable from a likeable source but potentially aggravating when coming from an unlikeable source. That being said, this pattern was only found when examining participants' liking of the advisor and not how much they took the advisor's advice.

### **Limitations and Future Directions**

As with all research, this study is not without limitations. First, although I provided a backstory for the likeability manipulation passage, the study as a whole was artificial in nature. That is, participants were asked to answer trivia questions while also receiving advice on a computer from a "previous participant". Furthermore, given the sample and trivia questions I utilized, this scenario was not an important domain for the participants. While the



findings certainly have implications for real-life situations in which one may receive advice (e.g., working in a group project, making financial decisions, collaborating on research, etc.), the scenario used was not particularly important to participants. Additionally, the participants were not given explicit incentives to provide good estimates.

Future research could, depending on the samples, gear a study using a domain that is personally important to the participants. For example, another study with a sample of undergraduate students could benefit from giving participants incentives (e.g., money, extra credit points) for accurate judgments. This would presumably increase participants' motivation to make good judgments and would allow for their judgments to have consequences.

Lastly, given that perceived advisor likeability was positively correlated with advice taking, it is possible that the likeability manipulation may have not been strong enough to impact levels of advice taking. The likeability manipulation, although significant, only shifted participants' average likeability ratings of the advisor from 3.43 in the unlikeable condition to 3.99 in the likeable condition. There were, however, several participants—regardless of the likeability condition—who rated the advisor as extremely likeable or extremely unlikeable. Therefore, it is possible that the correlation between likeability and advice taking was significant because people's likeability ratings spanned the entire range of the response scale. However, the likeability manipulation failed to influence advice taking because the manipulation only influenced the average likeability ratings by approximately .6 points on the 1-7 point response scale.

This study's experimental manipulation of advisor likeability could, in the future, allow for improved examinations to determine if larger differences in likeability can

influence levels of advice taking. Such manipulations also create greater sureness that likeability is what drives an increase or decrease in advice taking rather than other related factors. Future studies with stronger manipulations would produce greater dislike in the advisor and could therefore increase the likelihood of finding that the influence of advisor confidence on advice taking might depend on just how much one likes the advisor. For example, a future study could first have participants complete an unrelated task with a trained confederate. The confederate could act really nice and helpful towards participants in the likeable condition while acting outwardly rude and disparaging towards participants in the unlikeable condition. Following this interaction, the confederate would provide either confident or unsure advice to the participant. That is, if greater dislike is produced in the future, it would be easier to determine whether or not confidence could backfire when combined with dislike, cause an advisor to be viewed as a confident bastard, and therefore lead to less advice taking. It is also possible that the likeability manipulation may have influenced how much participants related to the advisor. Participants of this study were undergraduate students that likely experience frustrations with parents similar to those expressed in the unlikeable advisor passage. If this were the case, it is possible that even those in the unlikeable condition may have related to their advisor and this relatability influenced levels of advice taking. This could then explain the positive correlation between advice taking and advisor likeability, as well as the failure of likeability conditions to produce a significant effect on advice taking.

### **Conclusion**

The findings of this thesis expanded the current advice taking literature by replicating previous findings, utilizing explicit advice statements, and experimentally manipulating

advisor likeability, but the purpose of this study was to examine a potential situation in which confidence could hinder advice taking. Specifically, this research was the first to experimentally manipulate advisor confidence and likeability and found that the influence of confidence on advice taking does not depend on how much one likes the advisor. In other words, it seems that it is always better to express advice confidently, even when the advisor is disliked. People may dislike confident bastards, but they are still more likely to take their advice over the advice from an unsure bastard.

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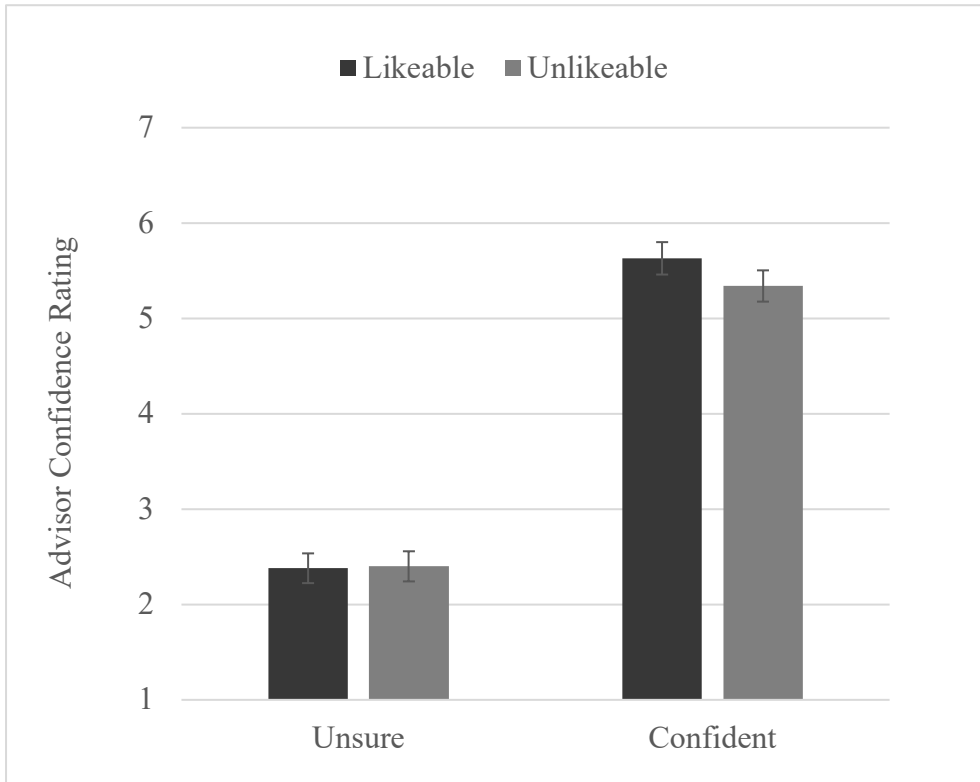
Table 1

*Descriptive statistics and relationships among WOA and participants' perception of advisor characteristics.*

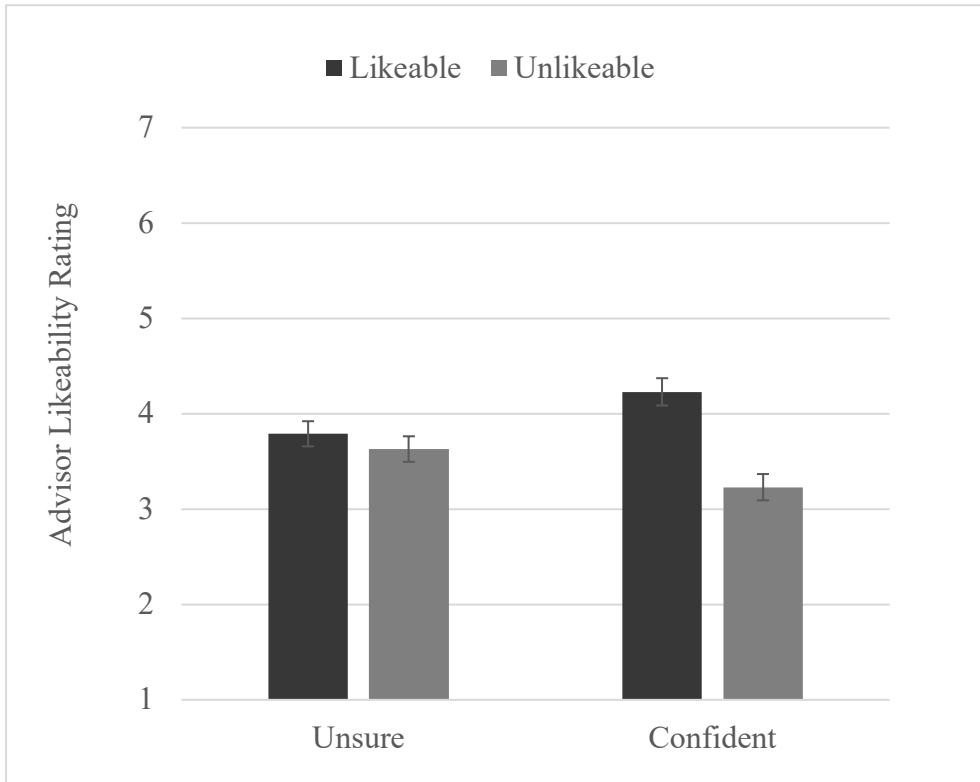
	Mean (SD)	Knowledgeable	Confident	Trustworthy	Likeable	Helpful	Similar
WOA	0.48 (0.32)	.469*	.256*	.487*	.245*	.555*	.252*
Knowledgeable	3.49 (1.52)	-	.477*	.640*	.434*	.692*	.272*
Confident	3.84 (2.17)		-	.348*	.093	.443*	.044
Trustworthy	3.12 (1.38)			-	.495*	.669*	.370*
Likeable	3.71 (1.33)				-	.464*	.514*
Helpful	3.31 (1.60)					-	.377*
Similar	3.13 (1.34)						-

Note: \*  $p < .001$ ; WOA index coded on a 0 – 1 scale; Knowledgeable, Confident, Trustworthy, Likeable, Helpful, and Similar Indexes coded on a 0 – 7 Likert scale. All values are r-values.





*Figure 1.* Participants' ratings of their advisors' confidence on a 7-point scale split by confidence and likeability conditions.



*Figure 2.* Participants' ratings of their advisors' likeability on a 7-point scale split by confidence and likeability conditions.

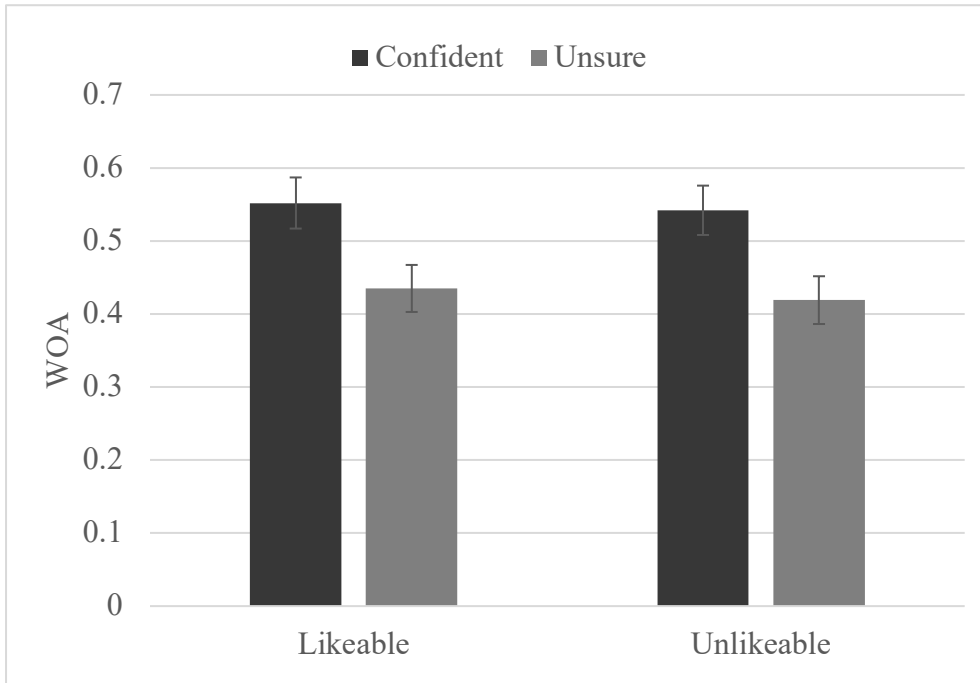


Figure 3. Participants' average WOA scores, split by confidence and likeability conditions.

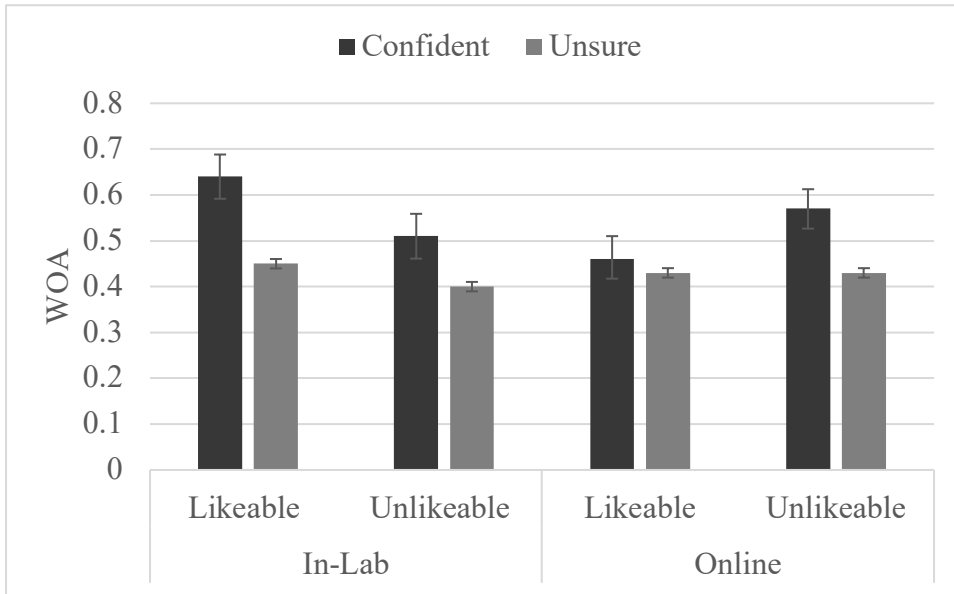


Figure 4. Participants' average WOA scores for the in-lab and online samples, split by confidence and likeability conditions

## Appendix A

**To:** Victor Norris  
Psychology  
CAMPUS EMAIL

**From:** Robin Tyndall, IRB Administrator  
**Date:** 9/19/2019  
**RE:** Notice of IRB Exemption

**STUDY #:** 19-0305  
**STUDY TITLE:** Trivia Questions

**Exemption Category:** 3.Benign Behavioral Intervention

This study involves minimal risk and meets the exemption category cited above. In accordance with 45 CFR 46.101(b) and University policy and procedures, the research activities described in the study materials are exempt from further IRB review.

All approved documents for this study, including consent forms, can be accessed by logging into IRBIS. Use the following directions to access approved study documents.

1. Log into IRBIS
2. Click "Home" on the top toolbar
3. Click "My Studies" under the heading "All My Studies"
4. Click on the IRB number for the study you wish to access
5. Click on the reference ID for your submission
6. Click "Attachments" on the left-hand side toolbar
7. Click on the appropriate documents you wish to download

**Study Change:** Proposed changes to the study require further IRB review when the change involves:

- an external funding source,
- the potential for a conflict of interest,
- a change in location of the research (i.e., country, school system, off site location),
- the contact information for the Principal Investigator,
- the addition of non-Appalachian State University faculty, staff, or students to the research team, or
- the basis for the determination of exemption. Standard Operating Procedure #9 cites examples of changes which affect the basis of the determination of exemption on page 3.

**Investigator Responsibilities:** All individuals engaged in research with human participants are responsible for compliance with University policies and procedures, and IRB determinations. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records. The PI should review the IRB's list of PI responsibilities.

**To Close the Study:** When research procedures with human participants are completed, please send the Request for Closure of IRB Review form to [irb@appstate.edu](mailto:irb@appstate.edu).

If you have any questions, please contact the Research Protections Office at (828) 262-2692 (Robin).

Best wishes with your research.

## Appendix B

### **Consent to Participate in Research** Information to Consider About this Research

#### **Trivia Questions**

Principal Investigator: Victor L. Norris III; [norrisvl@appstate.edu](mailto:norrisvl@appstate.edu)  
Faculty Advisor: Andrew R. Smith; [smithar3@appstate.edu](mailto:smithar3@appstate.edu)  
Department: Psychology

You are being invited to take part in a research study examining advice and trivia judgments. If you take part in this study, you will be one of about 300 people to do so. In this study, you will answer a number of trivia questions. Following the trivia questions, you will be presented with advice regarding the questions. Furthermore, you will be asked questions about your age and gender. Participation in this study will take no longer than 30 minutes.

Unfortunately, you cannot volunteer for this study if are under 18 years of age. To the best of our knowledge, the risk of harm for participating in this research study is no more than you would experience in everyday life. There may be no personal benefit from your participation, but the information gained by doing this research will help us understand factors that influence people's decisions. In turn, this may help us design practices to improve people's decision making.

During the study you will answer questions on a computer. We will record your answers but will not associate your name with your responses. All of your responses will remain confidential, and all responses will be stored on password-protected computers. This will help ensure the confidentiality of your responses.

You will not be paid for your participation in this study. However, you can earn 1 ELC credit for your participation. There are other research options and non-research options for obtaining extra credit or ELC's. One non-research option to receive 1 ELC is to read an article and write a 1-2 page paper summarizing the article and your reaction to the article. More information about this option can be found at: [psych.appstate.edu/research](http://psych.appstate.edu/research). You may also wish to consult your professor to see if other non-research options are available. Your participation in this study is completely voluntary. You can decide to stop at any time for any reason and you may skip any question you would prefer not to answer. You will receive no penalty for stopping this study early. If you choose to withdraw from the study, you will still be granted 1 ELC credit for your time.

The people conducting this study will be available to answer any questions concerning this research, now or in the future. You may contact the faculty advisor at 828-262-2272, [smithar3@appstate.edu](mailto:smithar3@appstate.edu), or principal investigator at [norrisvl@appstate.edu](mailto:norrisvl@appstate.edu). If you have questions about your rights as someone taking part in research, contact the Appalachian Institutional Review Board Administrator at 828-262-2692 (days), through email at [irb@appstate.edu](mailto:irb@appstate.edu) or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

By continuing to the survey, I acknowledge that I am at least 18 years old, have read the above information, and provide my consent to participate under the terms above.

## Appendix C

**Likeable Condition Passage**

"My dad is fairly unhealthy and is trying to lose weight. I've been helping him pick out meals to make and checking in to see how his diet is going. When he visited last week, I made sure I didn't have any junk food at my house. He has been making progress and seems a lot happier now. Even though I can't be around him all the time, I'm really proud that I've been able to help him with his diet and stick to his goal. I wish I could help him out more, but he says what I am doing is really helping a lot. I'm really excited to see how much weight he'll be able to lose and I hope he sticks with the diet. Yeah, helping my dad with his diet is what I'm proud of."

**Unlikeable Condition Passage**

"My dad is fairly unhealthy and is trying to lose weight. Every time he visits, he always complains about the junk food that I have in my house, even though I'm not fat like he is. I have to bite my tongue so we don't get into a fight. We can't even go to some of my favorite restaurants because he says they aren't healthy enough. He seems to be losing weight, but he has been pretty annoying about it. I guess I'm proud that I haven't gotten into more arguments with him about it. I could complain all the time about how he is being. We've gotten into a couple fights, but I could only keep my mouth shut for so long. Yeah, not telling my dad how annoying he's being is what I'm proud of."



Appendix D

**Trivia Questions**

What is the average lifespan for an African elephant in the wild? (56 years)

How many keys are there on a standard modern piano? (88 keys)

How many stories is the Empire State Building? (102 stories)

## Appendix E

**Confident Condition Advice**

I'm virtually certain that the African elephants can live to 80 years old, so you should put that.

I am confident there are 120 keys on a piano, so you should definitely go with that guess.

I'm almost positive that there are 70 stories, so I would guess that if I were you.

**Unsure Condition Advice**

I'm really not certain, but you should maybe go with 80 years old.

I could be wrong, but I would guess 120 keys if I were you.

You should probably guess 70 stories, but I'm not really confident in that guess.

## Appendix F

**Perception of Advisor Questions**

How knowledgeable did the advice giver seem to you based on their advice?

1 (Not at all knowledgeable) – 7 (Extremely knowledgeable)

How confident did the advice giver seem in their advice?

1 (Not at all confident) – 7 (Extremely confident)

How much do you trust the advice giver?

1 (Do not trust at all) – 7 (Great deal of trust)

How much do you think you would like the advice giver?

1 (Would not like at all) – 7 (Would like a lot)

How helpful was the advice you received from the advice giver?

1 (Not at all helpful) – 7 (Extremely helpful)

How similar do you think you are to the advice giver?

1 (Not at all similar) – 7 (Extremely similar)

### **Vita**

Victor Leroy Norris III was born in Gastonia, NC, to Victor and Tammy Norris. He graduated from North Gaston High School in June, 2013. The following fall, he enrolled at Gaston Community College, and in August 2014, he moved to Boone, NC to study psychology at Appalachian State University. In May 2018, he graduated magna cum laude with a Bachelor of Science degree in Psychology. During fall 2018, he enrolled into the Master of Arts Experimental Psychology program at Appalachian State University under the advisement of Dr. Andrew R. Smith researching advice taking and decision making. After graduation, he plans to teach psychology at the collegiate level in the Durham/Raleigh, NC area.