

DETECTING DECEPTION: THE ACCURACY OF THE GOOD JUDGE

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## ABSTRACT

Recent research has demonstrated that good judges - individuals who form accurate impressions of others - are skilled at detecting and utilizing social cues (Rogers & Biesanz, *in press*). Given this ability to detect and use cues, this study sought to determine whether good judges of personality are also skilled at detecting deception, as individuals are inaccurate in their judgements of deception (Vrij, Granhag, & Porter, 2010). A sample of college students ( $N = 262$ ) viewed videos of 10 individuals answering getting to know you questions and rated their personality. They then viewed videos of 14 individuals either lying or telling the truth that they did not cheat on a math task. Results indicated that participants were accurate in rating the personality of others and their accuracy of judging lies was significantly higher than chance. However, personality accuracy was not related to accuracy of judging lies.

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## CHAPTER I

### INTRODUCTION

Social interactions are part of everyday life and are crucial for maintaining relationships and for meeting new people. During social interactions, especially during initial interactions, people attempt to understand others better. When people first meet someone, they form a first impression, which can influence how they view that individual in the future. This has implications for continuing relationships or applying for jobs. People use a variety of information to form first impressions, sometimes using unique information provided in their interactions with others and other times based on general impressions of people on average. Fortunately, people are generally accurate in judging others' personalities (Biesanz, 2010; Biesanz & Human, 2010; Funder, 1995), but some people tend to view others more accurately- good judges (Funder, 1995; Letzring, 2008; Rogers & Biesanz, *in press*), and some people tend to be viewed more accurately- good targets (Human & Biesanz, 2011, 2013).

Given that good judges of personality exist, it is possible that there is an underlying skill for forming interpersonal impressions. There are several forms of interpersonal impressions, including forming impressions of whether an individual is lying. If the skills of a good judge of personality translate to multiple forms of interpersonal impressions, it is possible that those skills could lead to accurate judgments of deception. Research on detecting deception has shown that the average person is generally inaccurate in their judgments of truth and lies (Bond & DePaulo, 2008), with very few predictors being reliable, such as focusing on relevant cues of deception

(DePaulo et al., 2003; Vrij et al., 2010), being trained in relevant cues of deception (Ekman & O'Sullivan, 1991; Vrij et al., 2010), and the ability to identify micro-expressions (Frank & Ekman, 1997). This indicates that research needs to further assess what reliably predicts lying accuracy. In the current study I examined whether the good judge of personality would also be a good judge of lying.

### **Interpersonal Perceptions**

Interpersonal perception involves a target- the individual whose personality is being judged- and a perceiver- the individual who is judging the personality of the target (Funder, 1995). People are generally accurate in judging others' personalities (Biesanz, 2010; Biesanz & Human, 2010; Funder, 1995). The Realistic Accuracy Model (RAM) outlines the process for a perceiver to make an accurate judgment of a target (Funder, 1995). Both targets and perceivers are crucial to the process of forming accurate personality impressions. Targets must make *relevant* behaviors *available* to the perceiver (Funder, 1995). For example, for a target to be accurately viewed as extraverted they would need to exhibit relevant cues to extraversion, such as being talkative, frequently so that perceivers can detect those cues. Perceivers then have to *detect* and accurately *utilize* this information to form an accurate impression (Funder, 1995). For example, an accurate perceiver would *detect*, or observe, relevant cues to extraversion, such as being talkative, and then *utilize* those detected cues to rate that target high in extraversion instead of being high in neuroticism. RAM defines an accurate impression as one that agrees with the target's personality traits (Funder, 1995). This agreement can be assessed in different ways, including comparing the perceiver's impressions to the target's self-reports of personality and reports of their personality from family or friends (Funder, 1995).

In line with Biesanz (2010) and Furr (2008), it is possible to assess two aspects of accuracy: distinctive and normative. Distinctive accuracy is when others see the unique personality traits in an individual and can distinguish them from other individuals (Biesanz, 2010; Rogers, Wood, & Furr, 2018). This includes knowing levels of traits in individuals, such as whether an individual is more talkative than kind, and how they differ from other targets on those traits (Biesanz, 2010; Rogers et al., 2018). Normative accuracy is when perceivers view a target as similar to the average person, such as knowing how talkative and kind most people are (Biesanz, 2010; Rogers et al., 2018). Viewing individuals similarly to the average person's personality, or normatively, also means the impressions is positive and socially desirable (e.g., most people are more kind than hostile), because the average person's personality tends to be positive (Wood & Furr, 2016). Normative accuracy also tends to be a positive because the normative means are calculated by taking the average of all the targets' self-report, and most people tend to self-report in a positive manner (Borkenau & Leising, 2016; Wood, Gosling, & Potter, 2007).

It is necessary to separate these two aspects of impressions because impressions could relate strongly with a target's self-report, but once the normative profile is accounted for their impressions may not relate strongly with a target's self-report (Furr, 2008; Rogers et al., 2018). This would indicate that they were not viewing the target's unique personality traits but are seeing them as similar to the average person. A perceiver's impressions could also not relate with a target's self-report, but once the normative profile is accounted for their impressions may relate strongly with a target's unique self-report (Furr, 2008; Rogers et al., 2018). This would indicate that the perceiver was viewing the target in line with their unique traits. When only assessing the raw personality profile, it is possible that researchers could draw incorrect conclusions because

most personality profiles tend to be normative (Furr, 2008). By separating personality profiles into distinctive and normative assessments it provides researchers with more information about the ways in which perceivers are viewing the targets.

### **Variability in Interpersonal Perception**

While, on average, people are accurate in their impressions of others, there are individual differences in the tendency to view others accurately and to be viewed accurately by others. Moreover, a specific dyad may also result in a more or less accurate impression than expected by either the target or perceiver average tendencies. While it is important to find that people can view others accurately and be viewed accurately, it is also important to understand how people vary these abilities to judge and be judged accurately.

Recent research has focused on individual differences in being a good target – an individual who tends to be understood easily and accurately by others (Human & Biesanz, 2011, 2013; Human, Biesanz, Finseth, Pierce, & Le, 2014; Human, Biesanz, Parisotto, & Dunn, 2012). In line with RAM (Funder, 1995), targets primarily influence impression accuracy via cue relevancy and availability, but targets may also be able to obtain greater attention from a perceiver, thereby increasing detection (Human et al., 2012). Indeed, well-adjusted targets are seen more accurately because they disclose a higher quality of personality information (Human & Biesanz, 2011) and tend to behave more in line with their personality (Human et al., 2014). Moreover, targets who self-present are viewed more accurately by others because they were engaging and well liked, resulting in perceivers paying closer attention during interactions (Human et al., 2012).

Compared to targets, perceivers do not vary widely in how accurately they judge the personality of others. Females are more normatively accurate than males and have greater knowledge of the average personality (Chan, Rogers, Parisotto, & Biesanz, 2011; Rogers & Biesanz, 2015). Research has also indicated that the motivation of the perceiver impacts accuracy. When perceivers are motivated to judge a target accurately, by being told to be as accurate as possible, they perceive more detailed information about the target's personality and form more distinctive, but less normative impressions (Biesanz & Human, 2010). Finally, individuals that are good judges are better able to judge personality as they have general knowledge about personality and human nature, are highly intelligent, have social skills, and greater similarity to the target (Davis & Kraus, 1997). However, different studies have found various characteristics associated with being a good judge. Overall, perceivers are more accurate when they observe unique and detailed information about targets and are able to apply those observations in order to form accurate personality impressions.

### **The Distinctive Good Judge**

While people are generally accurate in judging personality, the good judge forms more accurate impressions of others (Funder, 1995; Letzring, 2008; Rogers & Biesanz, *in press*). There have been contradictory results regarding the existence of the good judge. Some research indicates that there is no evidence of good judges (Allik, de Vries, & Realo, 2016) or that they are not significantly different from average judges of personality (Haselton & Funder, 2006). However, there are methodological issues that prevent the effect of the good judge from being evident in some studies. One is that when searching for the good judge, impressions are formed across good and poor targets. Poor targets do not provide enough cues to their personality

(Human & Biesanz, 2013), meaning that they provide little to no information about their personality traits. Without information on a target's personality, even those skilled in accurately judging personality cannot form accurate impressions (Rogers & Biesanz, *in press*). As a result, it appears that the good judge is no more accurate in forming impressions than the average person because the individual differences in the good judge are washed out. Conversely, when studies assess the effects of good targets it makes it possible for the individual differences of the perceiver to be evident, showing that good judges of personality form more accurate impressions than a poor judge of personality (Rogers & Biesanz, *in press*). With more support for the existence of the good judge, it is important to understand what characteristics result in the ability of the good judge to form accurate impressions.

Research has documented several potential characteristics of good judges, such as a greater understanding of human nature, social skills, higher intelligence, and greater similarity to the target (Davis & Kraus, 1997). These positive characteristics have been found in recent research to make others feel comfortable providing information about themselves (Letzring, 2008), thereby aiding the process of accurate personality judgments. The characteristics of the good judge also relate to the process of accurate personality judgments proposed by Funder (1995) in the RAM model of accuracy. First, it is possible that due to the good judge's social and agreeable nature, targets may provide more *relevant* cues in the interaction because they are comfortable around the good judge (Letzring, 2008). This makes them better able to obtain information about targets which improves accuracy. They also *detect* more of the cues provided by the target by being attentive and possibly more motivated to accurately judge personality and then better *utilize* those cues to form accurate impressions of personality (Rogers & Biesanz, *in press*). Research on the ability of the good judge to accurately judge personality raises the

question of what other skills the good judge may have. Given that they have higher impression accuracy, would they also have higher lie detection accuracy?

## **Detecting Deception**

Research on detecting deception has found that, on average, individuals are often inaccurate in their judgments of lying, with lie detection accuracy being no better than chance (Bond & DePaulo, 2008; DePaulo, Charlton, Cooper, Lindsay, & Muhlenbruck, 1997). However, some characteristics of targets and perceivers increase the accuracy of detecting deception, such as individuals who are high in openness and agreeableness (Enos et al., 2006). Those high in openness may adjust to other viewpoints and rely less on set preconceptions about relevant deception cues (Enos et al., 2006). Additionally, increased lie detection accuracy is also the result of focusing on relevant cues to deception (DePaulo et al., 2003; Vrij et al., 2010). The ability to focus on relevant cues can be improved with training (Vrij et al., 2010), which is supported by research showing that secret service agents accurately detect lies at slightly higher than chance levels (Ekman & O'Sullivan, 1991). This could indicate that skill is involved in detecting lies. Training methods include telling people the cues to focus on and ones to ignore, educating people on what cues are relevant to lie detection, or providing feedback on whether their judgments of lies were accurate (Vrij et al., 2010). However, some individuals who are trained in detecting deception are still only accurate at chance levels, indicating that training is not the only component of accurately judging deception.

Moreover, the type of lie may relate to an individual's ability to detect lies. Frank and Ekman (1997) found that lie detection accuracy in two different high stakes situations, one in which people were lying about a crime and one in which they were lying about their opinion, were



related. This means that high stakes lies were accurately judged across two different studies, showing a reliable ability to judge high stakes lies. Frank and Ekman (1997) also found that lie accuracy was also related to the ability to identify micro-expressions, which are brief facial expressions demonstrating strong emotions. This demonstrates that micro-expressions may be a reliable indicator that someone is lying. However, low stakes lies are often not accurately judged across different types of lies (Frank & Ekman, 1997). In sum, type of lie is associated with accuracy, such that high stakes lies are often easier to detect than low stakes lies.

Additionally, similar to impression accuracy (Human & Biesanz, 2013), targets vary more in their ability to lie than perceivers do in their ability to detect lies (Bond & DePaulo, 2008). This indicates that the processes involved in judging personality and deception have similarities, which could mean that the process of accurately forming impressions of personality and deception could be related. There also appear to be methodological parallels in personality and deception research that could contribute to lower accuracy. Lie detection research often does not directly assess whether people are judging good or bad liars (Culhane, Kehn, Hatz, & Hildebrand, 2015; DesJardins & Hodges, 2015; Frank & Ekman, 1997), just as first impression research often assesses the ability to form accurate impressions across good and bad targets. This could be another reason why lying accuracy has been low in previous research. While a recent meta-analysis found that accuracy of judging personality and deception were unrelated, this study still has the same methodological issues of assessing accuracy of perceivers across good and bad targets (Schlegel, Boone, & Hall, 2017). Some of the interpersonal assessments also had low reliability and construct validity, as the personality assessments did not correlate strongly with one another. This indicates that the personality assessments analyzed were not valid or measured personality accuracy too differently for these measures to correlate. If the personality

assessments did not correlate strongly with one another it would be unlikely for them to correlate strongly with an assessment of lying accuracy. Thus, it remains an open question whether an individual who generally understands the personality of others is also able to detect lies.

### **Reasons for Inaccurate Judgments of Deception**

The impressions that an individual forms of others impacts their ability to accurately judge lying. If perceivers viewed a target as credible and trustworthy, they were more likely to think the target was being honest even if the target was lying (Baker, Porter, ten Brinke, & Mundy, 2016; Bond & DePaulo, 2008). Self-presentation could also influence accuracy of detecting deception. Individuals that are lying could portray themselves more positively than is accurate, which elicits positive impressions from perceivers in first impression research (Human et al., 2012). This could influence perceivers to indicate that someone is telling the truth even if they are lying. However, in first impression research positive self-presentation can also lead to greater distinctive accuracy in personality impressions as the engaging nature of the target is associated with increased attention from the perceiver (Human et al., 2012). This could indicate that positive self-presentation could make perceivers more attentive to the targets and increase their accuracy of detecting lies. While the direction of this influence in deception research is unclear, these findings do indicate that how individuals view others and how individuals present themselves could influence lie detection accuracy.

Overall, perceivers assume that targets are honest, which is referred to as truth bias (Bond & DePaulo, 2008). One study found that truth biases were prevalent in face-to-face interactions, especially when individuals knew one another (Burgoon & Buller, 1994). Another study found that discovered that perceivers also assumed target honesty due to lack of motivation to

accurately detect lies, as it is simpler and sometimes beneficial to accept lies (Vrij et al., 2010). While most perceivers assume honesty, there are some perceivers that consistently assume targets are lying, referred to as lie biases. Lie biases were present when perceivers were suspicious in nature (Bond & DePaulo, 2008; Burgoon & Buller, 1994). These biases often overwhelm the average individual's ability to detect lies.

Lie detection is a challenging task. Verbal and nonverbal cues are crucial in detecting deception, and research has indicated that participants often attributed deception to irrelevant cues (DePaulo et al., 1997). Cues are often difficult to detect as targets attempt to appear credible and hide deceptive cues, especially with high stakes lies, and there are also small differences between cues that indicate individuals were telling the truth and cues that indicate individuals were lying (Vrij et al., 2010). As a result, perceivers struggle to accurately utilize cues as there are no specific and unique cues associated only with lying (Vrij et al., 2010). For example, perceivers often think that targets will look away and move more frequently when they are lying, when the opposite is true (Vrij et al., 2010; Vrij & Semin, 1996). Lie detection accuracy also decreases when perceivers focus too much on nonverbal cues without considering relevant verbal cues (Vrij et al., 2010). When perceivers relied on irrelevant cues and were confident in their judgments of lying and in their own skill of detecting deception, lie detection accuracy decreased (DePaulo et al., 1997; Vrij et al., 2010). Thus, it is important to focus on relevant cues to deception in order to accurately detect deception.

### **Relevant Cues to Deception**

Perceivers often attribute deception to inaccurate cues, demonstrating the importance of knowing accurate deception cues, which consist of both verbal and nonverbal cues. However,

both verbal and nonverbal cues are often idiosyncratic. Verbal cues to deception can include speech, such as errors in speech, fillers such as “um” or “ah”, long pauses before responding, talking slower, and tone and pitch of voice (DePaulo et al., 2003; Levitan et al., 2015; Vrij et al., 2010; Vrij & Semin, 1996). DePaulo et al. (2003) found that the content of speech is also important, with truthful stories containing more detail and sensory information than lies in some cases (DePaulo et al., 2003). Those that are lying may also be more negative in their comments, complaining often (DePaulo et al., 2003). However, these cues vary between targets and are not always reliable indicators of whether an individual is lying.

Nonverbal cues to deception can include less body movement and emotional cues present in facial expression (DePaulo et al., 2003; Frank & Ekman, 1997; Vrij & Semin, 1996). Emotional cues are often present in high stakes lies, where emotions are expressed on the target’s face as micro-expressions (Frank & Ekman, 1997; Yan, Wang, Liu, Wu, & Fu, 2014). Micro-expressions only briefly show emotion, so training is often necessary to be able to detect these expressions (Yan et al., 2014). These facial expressions may be less pleasant than someone telling the truth (DePaulo et al., 2003). Research has demonstrated the importance of both verbal and nonverbal cues in lie detection accuracy as well as the importance of considering both when determining whether a target is lying (Ekman & O’Sullivan, 1991; Vrij et al., 2010). There are few reliable cues to deception, which contributes to the difficulty of the task of detecting deception.

With research suggesting that individuals, on average, cannot accurately detect deception (Bond & DePaulo, 2008; DePaulo et al., 1997) it leaves open for the possibility of important individual differences. That is, while on average, people may be no better than chance, there may still be important variability across individuals. As such, it is possible that the good judge of

personality may be one person who is also able to better detect lying. The ability of a good judge to detect and utilize relevant cues should help them overcome the reasons for inaccurate judgments of deception. Their skills in forming impressions of personality could translate to the task of detecting deception, which would make a good judge of personality more accurate in detecting lies.

### **Other Types of Accuracy**

As lie detection involves forming impressions of the value of honesty, it is important to know whether individuals can accurately judge values. In addition to the judgments of personality traits, research has examined the accuracy of judging values - the motivation and reasoning behind an individual's decision to behave in a certain way (McDonald & Letzring, 2016). Research indicates that perceivers more accurately judged traits than values (McDonald & Letzring, 2016). While some values, such as tradition, were judged accurately, overall perceivers' ratings of traits were more accurate (McDonald & Letzring, 2016). However, when separating normative and distinctive accuracy, there was no significant difference in accuracy of personality and value judgments (McDonald & Letzring, 2016). This could indicate that the ability to judge personality is related to judging values like honesty when assessing the two components of accuracy. As good judges are more distinctively accurate, a good judge of personality could also be a good judge of values, such as honesty, and therefore more accurate in detecting deception.

As demonstrated in studies with high stakes lies, emotional cues are important in lie detection accuracy. Empathy of the perceiver is crucial to accurately judging affect, however this is only the case if the target clearly expresses their emotions (Zaki, Bolger, & Ochsner, 2008),

just as having a good target influences accuracy of personality impressions. Research indicates that individuals are equally accurate in judging affect and personality (Hall, Gunnery, Letzring, Carney, & Colvin, 2016). There was a relationship between judging personality and affect when the affect and personality trait were related; for example, accurately judging negative affect was related to accurately judging neuroticism (Hall et al., 2016). This indicates that similar processes are used to judge affect and personality. Therefore, a good judge of personality may be a good judge of affect. This could mean that good judges may be better able to detect the emotional cues present when targets lie which should increase accuracy.

### **The Good Judge's Ability to Detect Deception**

The characteristics of good judges may increase their lie detection accuracy by helping them avoid hindrances to lie detection accuracy and increasing their ability to detect relevant deception cues. Research has indicated that individuals do not accurately detect deception (Bond & DePaulo, 2008; DePaulo et al., 1997) as a result of inaccurate personality judgments (Bond & DePaulo, 2008), biases (Bond & DePaulo, 2008; Burgoon & Buller, 1994), difficulties present in detecting lies (Vrij et al., 2010), and focusing on irrelevant cues (DePaulo et al., 1997; Vrij et al., 2010; Vrij & Semin, 1996). The ability of a good judge to detect and utilize relevant cues should help them overcome the reasons for inaccurate judgments of deception.

The truth bias present in deception research (Bond & DePaulo, 2008) could be the result of normative accuracy. Perceivers may not have received enough information to distinguish the targets from the average person. Since the average personality profile is positive (Biesanz, 2010; Rogers & Biesanz, 2015; Wood et al., 2007), lie detection accuracy could decrease by viewing a lying individual as an average person. Given that good judges are distinctively accurate, their

ability to detect more cues and unique information about the target could decrease the biases present in deception research due to inaccurate personality judgments, thereby increasing accuracy (Funder, 1995; Letzring, 2008).

The good judge's ability to detect and utilize cues (Rogers & Biesanz, *in press*) may help them overcome the difficulties of unclear cues due to attempts to appear credible, minor differences in behavior of those telling the truth and lying, and the lack of a single defining cue of deception. They should be able to detect relevant cues of deception more often than the average person and utilize those cues more appropriately instead of focusing on and drawing conclusions from irrelevant cues.

Research has also shown that personality traits (Enos et al., 2006), occupation (Ekman & O'Sullivan, 1991), training and skill (Vrij et al., 2010), and focusing on relevant deception cues (DePaulo et al., 2003; Vrij et al., 2010) can improve lie detection accuracy. Research on the influence of occupation and training on lie detection accuracy indicate that skill is involved in detecting lies. With the good judge's skill in impression accuracy, it is possible that skill will improve the lie detection accuracy. Finally, good judges are better able to detect and utilize cues, so they should focus on relevant verbal and nonverbal cues and utilize both forms of cues.

## **Hypotheses**

Given that good judges can accurately judge personality, it is possible they have other abilities such as lie detection. Are good judges more accurate in their judgments of everyday lies and high stakes lies? I hypothesized that good judges would more accurately detect high stakes and everyday lies than a poor judge. I also predicted that there would be a stronger effect for high stakes lies as these provide more cues, such as micro-expressions. Normative judges, those

who tend to rate someone as similar to the average person, I predicted would display an honesty bias because of their positive impressions. Given that confidence in irrelevant deception cues decreases lie detection accuracy, I predicted that good judges, who focus on relevant cues, who are confident in their ratings of personality and lie detection would have higher levels of lie detection accuracy. Alternatively, poor judges, who focus on irrelevant cues, who are confident in their ratings would have lower levels of lie detection accuracy. Good judges of honesty and agreeableness would also differ in lie detection accuracy due to their ability to understand how honest and agreeable people are on average. If perceivers can accurately judge a target's general tendency to be honest, they would be able to judge whether an individual is lying in a given scenario. Similarly, if perceivers can accurately judge a target's general tendency to be sincere and non-manipulative, characteristic of those high in agreeableness, they would be able to judge whether an individual is being sincere and honest in their statements.

Personality traits of the perceivers would also predict lying accuracy. Specifically, those high in openness and agreeableness would be more accurate in judging lies. Those that value honesty would also more accurately detect lies. Finally, I predicted an interaction between perceived credibility or trustworthiness of target and the accuracy of lie detection. If targets are honest and are perceived to be trustworthy then lie detection accuracy would increase. However, if the target is not honest but is perceived to trustworthy then lie detection accuracy would decrease.



## CHAPTER II

### PILOT STUDY METHODOLOGY

#### **Overview**

The purpose of the pilot study was to determine which interview videos to use as stimuli for participants to rate the personality of targets in the thesis study. Participants viewed 10 or 11 different individuals answering the same basic getting to know you questions before rating the personality of those individuals. After each video, they rated the personality of the target. This study, called Analyzing Personality, was approved by the University of Tennessee at Chattanooga's (UTC) Institutional Review Board with the approval code of 16-057 and lasted for one hour.

#### **Participants**

A total of 310 (271 female) UTC students between the ages of 18 and 62 years ( $M = 20.95$ ,  $SD = 4.96$ ) participated in the study. They were recruited through the psychology department's human subject pool ( $n = 133$ ), the SONA system, in which they participated in groups of 1 to 9 ( $Mdn = 5$ ), as well as through research methods and statistics laboratory courses ( $n = 177$ ) in which they participated in groups of 9 to 27 ( $Mdn = 13$ ). Two participants were excluded due to tablet malfunctions during the study and specific impressions were excluded if participants knew a specific target ( $n = 86$ , 3% of impressions). This ensures that all judgments

are coming from first impressions of the targets' personality. As a result, perceivers formed 6 to 11 impressions after excluding data ( $Mdn = 8$ ). Finally, 6 perceivers only rated 8 out of the 10 videos due to a fire alarm. Participants received course extra credit for participating.

## **Materials**

The videos used in this study were created in a previous research project at UTC in which one of two researchers interviewed participants with basic getting to know you questions. A total of 92 targets were taped answering questions regarding major life decisions (Andersen & Ross, 1984; Human et al., 2014), passions (Human et al., 2014), greatest accomplishments, and other questions that were not of interest to this study. To create the sets of videos for this study, target videos were excluded if the target did not consent to showing the video ( $n = 2$ ), did not receive any peer or parent reports ( $n = 34$ ), or the peer and parent reports did not vary in their responses ( $n = 2$ ), if the target did not complete the self-report of their personality ( $n = 1$ ), or the target did not respond to all of the chosen interview questions ( $n = 2$ ). Self, peer and parent reports of the target's personality are necessary for my analytical method to create a composite of personality traits for each target using the average of these personality reports, so the video targets nominated peers and a parent or guardian to report on the target's personality. The perceivers' judgments were then compared to these composites to determine which targets were more accurately judged by others. These exclusion criteria left 51 (48 female) videos that were divided into 5 video sets of 10 to 11 people that were counterbalanced to offset order effects and fatigue, resulting in a total of 10 video sets. Ages were between 18 and 49 ( $M = 22.3$ ,  $SD = 6.10$ ) and the video lengths were between 1 min and 2 s and 7 min and 55 s ( $M = 2$  min 24 s,  $SD = 0.05$ ).

## **Personality Measure**

The video targets completed the 40 item mini marker scale (Saucier, 1994) which assesses the big five personality traits of extraversion, agreeableness, conscientiousness, emotional stability, and openness (see Appendix A). Responses were on a scale of 1 (*disagree strongly*) to 7 (*agree strongly*). All ratings of personality (informants, impressions) completed this scale to rate the personality of the video targets.

## **Procedure**

For those that participated through the SONA system, 1 of the 10 video sets were randomly chosen for each session before the study and the questionnaires were opened on tablets using Qualtrics. Participants first reviewed the consent form and after consenting they provided their age and gender. Participants then viewed the randomly chosen video set of 10 or 11 different individuals answering basic getting to know you questions. After each interview the video was paused for participants to complete the mini marker scale (Saucier, 1994) to rate the personality of that individual. After all the videos had been viewed and participants finished rating the personality of all the individuals in the video, participants were debriefed, and the study ended. The same procedure was followed for those that participated in research methods and statistics laboratory courses, except the Qualtrics survey was emailed to all the students in the course and they opened the questionnaires on the laboratory computers.

## **Data Analytic Procedure**

I used the social accuracy model (SAM) to analyze how accurately the targets were viewed (Biesanz, 2010). I first calculated the mean by item of male and female participants'

responses to the self-report personality measure, creating the normative profile. Then I created the distinctive accuracy component by averaging the target's personality self-report with their informant reports for each item (Biesanz, 2010) and subtracted the normative means from the self and informant means for each item. I obtained this information from the personality self-reports and peer and parent reports from the forming impressions study conducted at UTC. The target validity measure and average self-reported personality were used simultaneously as predictors of the perceiver's impression (Biesanz, 2010).

I analyzed Equation 1 to estimate overall normative and distinctive accuracy:

$$Rating_{ijk} = \beta_{0ij} + \beta_{1ij} Tvalidity_{jk} + \beta_{2ij} \overline{Tvalidity}_k + \varepsilon_{ijk},$$

where  $Rating_{ijk}$  is perceiver  $i$ 's rating of target  $j$  on item  $k$ ,  $Tvalidity_{jk}$  is target  $j$ 's averaged self- and informant- report on item  $k$ , and  $\overline{Tvalidity}_k$  is the average response for the sample on item  $k$ .

The slopes in Equation 1 were estimated for each dyad:

$\beta_{1ij}$  assesses the distinctive accuracy of perceiver  $i$  for target  $j$ . This estimates how accurately targets were viewed in line with their unique traits, distinguishing them from the average person. Distinctive accuracy assesses the extent that perceivers accurately judged the unique traits of the targets.

$\beta_{2ij}$  assesses the normative accuracy of perceiver  $i$ 's rating of target  $j$ . This estimates the extent to which perceivers viewed the targets as similar to the average person. Normative accuracy assesses the extent that perceivers judge the targets as similar to the average person and views them positively.

These estimates were further broken down into main effects for perceivers, targets, and dyads, as demonstrated in Equation 2:

$$\beta_{0ij} = \beta_{00} + u_{0i} + u_{0j} + u_{0(ij)},$$

$$\beta_{1ij} = \beta_{10} + u_{1i} + u_{1j} + u_{1(ij)}, \text{ and}$$

$$\beta_{2ij} = \beta_{20} + u_{2i} + u_{2j} + u_{2(ij)},$$

where  $\beta_{0ij}$  estimates the intercept for perceiver  $i$  for target  $j$ ,  $\beta_{1ij}$  estimates the distinctive accuracy of perceiver  $i$  for target  $j$ , and  $\beta_{2ij}$  estimates the normative accuracy of perceiver  $i$  for target  $j$ .

These estimates indicate how distinctively and normatively accurate perceivers were in judging the targets and how distinctively and normatively accurate targets were viewed. The purpose of this study was to find targets that were viewed more distinctively accurately than others,

indicating that they are a good target that provides relevant cues to their personality. As a result,

I focused on the target random effects for distinctive accuracy.

## CHAPTER III

### PILOT STUDY RESULTS

#### **Overall Impression Accuracy**

First, I assessed the general accuracy of the perceivers' personality impressions of the video targets. Overall, perceivers were distinctively accurate, meaning their impressions of the target were related to the targets' self-report of personality (Table 1). Perceivers were also normatively accurate, meaning that perceivers viewed the targets as similar to the average person and positively (Table 1). I also assessed the individual differences in how distinctively and normatively accurately the targets were viewed, allowing me to determine whether the targets varied in how accurately they were viewed. Targets did vary significantly in how distinctively and normatively accurately they were viewed, indicating that some targets were viewed more accurately than others (Table 1). This provided evidence for good targets; those individuals were the ones I chose for my thesis stimuli. I also created a density plot to provide a visual representation of the variability of the normative and distinctive accuracy assessments. The density plot for target distinctive accuracy shows the variability between targets in their ability to be judged distinctively accurate (Figure 1). The density plot for target normative accuracy shows the variability between targets in their ability to be judged normatively accurate (Figure 2). These density plots highlight the variability in how accurately the targets were viewed.

Table 1 Pilot Study Personality Impression Accuracy

Parameter	Estimates ( <i>SE</i> )
Fixed Effects	
Intercept	3.84 (0.02)***
Distinctive Accuracy	0.12 (0.02)***
Normative Accuracy	0.75 (0.04)***
Random Effects	
Perceiver	
Intercept	0.29***
Distinctive Accuracy	0.05***
Normative Accuracy	0.35***
Target	
Intercept	0.11***
Distinctive Accuracy	0.14***
Normative Accuracy	0.25***
Residual SD	1.32
Sample Sizes	
Perceivers	287
Targets	51

Note. \*\*\* $p < .001$

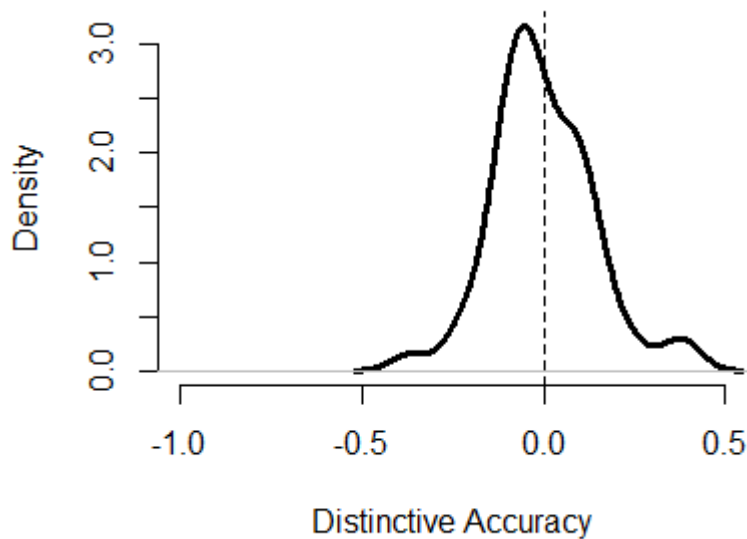


Figure 1 Density plot for target distinctive accuracy

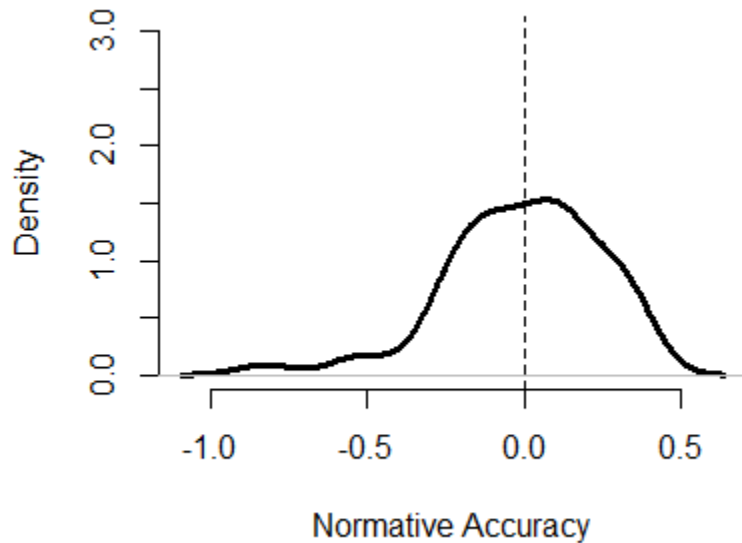
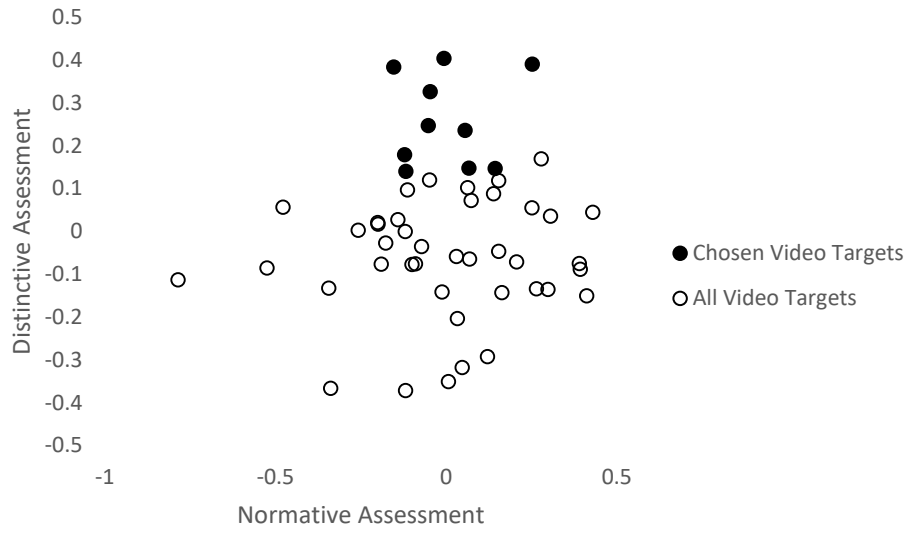


Figure 2 Density plot for target normative accuracy

### Chosen Video Stimuli

To choose the video stimuli for my thesis study, I narrowed the videos down to the 10 targets that obtained the highest estimates for the distinctive accuracy assessment. One of those videos lasted for 7 min 55 s, which was much higher than the other video lengths that were between 1 min and 8 s and 2 min and 57 s ( $M = 2$  min 11 s,  $SD = 3.22$  s). I chose to exclude that target because they were an outlier, possibly providing more cues than the other targets or causing participants to lose focus while viewing the video. Instead, I chose the target that was rated the 11<sup>th</sup> most distinctively accurate. The accuracy estimates were between 0.14 and 0.40 ( $M = 0.26$ ,  $SD = 0.11$ ). Figure 3 plots the normative and distinctive accuracy of all video targets. The targets that were chosen for the main study are indicated by the markers that are filled in.





*Figure 3* Scatterplot of normative vs. distinctive target assessments

## CHAPTER IV

### THESIS STUDY METHODOLOGY

#### **Overview**

The purpose of this study was to examine whether those who understand the personality of others are also able to determine whether an individual is lying. Participants completed self-reports of personality, valuing honesty, and demographics. Participants then viewed videos of targets answering basic getting to know you questions and rated the targets' personality. They then viewed videos of targets telling low and high stakes true or false statements and determined which statements were true and which were lies. This study, called Accuracy of Impressions, was approved by the UTC Institutional Review Board with the approval code of 17-181 and lasted for two hours.

#### **Participants**

A total of 262 (218 female) UTC students participated in the study, ages were between 18 and 63 ( $M = 21.89$ ,  $SD = 5.23$ ). They were recruited using the SONA system ( $n = 74$ ) as well as various undergraduate courses ( $n = 188$ ). For those that participated through the SONA system, students participated in groups of 1 to 7 ( $Mdn = 4$ ). For those that participated in undergraduate courses, students participated in groups of 30 to 97 ( $Mdn = 61$ ). Specific impressions were excluded if the perceiver did not vary their responses ( $n = 9$ , 0.4%) or if they knew the target ( $n = 234$ , 10%). This ensures that all judgments are coming from first impressions of the target's

personality. As a result, perceivers formed 1 to 10 personality impressions after excluding data ( $Mdn = 6$ ). Participants received course extra credit and were entered in a drawing for 1 of 10 25-dollar gift cards for participating.

## **Materials**

### **Personality Videos**

I created the personality videos by choosing the 10 targets (9 female) that were rated the most distinctively accurate from the pilot study. Ages were between 18 and 22 ( $M = 19.8$ ,  $SD = 1.62$ ) and the video lengths were between 1 min and 8 s and 2 min and 57 s ( $M = 2$  min 13 s,  $SD = 1.48$  s). The order of these videos was counterbalanced to ensure effects were not due to the order of the videos or fatigue.

### **Lying Videos**

The 14 lie videos (14 male) were obtained from Hatz (2007) and Culhane et al. (2015). In this study participants were instructed to work through math problems that would be used to place incoming freshman. They were told to work with the other participant, a confederate, to complete some of the problems and to work on the others alone. With half of the participants the confederate asked for help on the problems they were supposed to complete alone and with the other half they did not ask for help. Those that the confederate asked for help did help and those that the confederate did not ask worked alone. The experimenter then graded the problems and told all participants that it appeared they had cheated, and they would be punished if they had cheated. Those in the low stakes condition ( $n = 6$ ) were told they would not receive extra credit if they had cheated and those in the high stakes condition ( $n = 8$ ) were told they would appear

before an honor board if they had cheated. Participants were questioned and videotaped and those that did cheat lied in their responses ( $n = 6$ ) and those that did not cheat were honest in their responses ( $n = 8$ ). This created high stakes lies ( $n = 4$ ) and honest videos ( $n = 4$ ), as well as low stakes lies ( $n = 2$ ) and low stakes honesty videos ( $n = 4$ ). Ages ranged from 18 to 22 and the video lengths ranged from 30 s to 2 min 53 s ( $M = 59$  s,  $SD = 1.50$  s). These videos were compiled by randomly ordering the low and high stakes lies to create one video sequence and was counterbalanced to create another video sequence to ensure effects were not due to video order or fatigue.

## Measures

### Personality

Participants completed the mini marker scale (Saucier, 1994) to report their own personality, which assesses the big five personality traits of extraversion, agreeableness, conscientiousness, emotional stability, and openness. It contains 40 items with eight items for each personality trait and responses are on a scale of 1 (*disagree strongly*) to 7 (*agree strongly*). For this study, an additional eight items were included to assess honesty-humility (see Appendix A). Descriptive statistics for this measure are reported in Table 2. This scale was also used to rate the personality of the video targets, with an additional item to indicate whether they knew the video target (see Appendix B). This was used as an exclusion criterion to only assess first impressions of personality. Participants also completed a basic demographics questionnaire (see Appendix C).

Table 2 Descriptive Statistics of Self-Report Measures

Self-Report Measure	Mean	SD	Reliability ( $\alpha$ )
Saucier's Mini-Markers			0.80
Extraversion	4.52	1.10	0.83
Agreeableness	5.74	0.78	0.82
Openness	5.41	0.86	0.80
Conscientiousness	5.42	0.90	0.83
Emotional Stability	4.38	0.97	0.77
Honesty-Humility	5.63	0.68	0.70
Valuing Honesty	5.77	0.45	0.67

### Honesty

Participants completed a self-report measure to rate how much they value honesty using the honesty subscale of the Values in Action Character Survey (Peterson & Seligman, 2004), a nine item measure of honesty (see Appendix D). Responses are on a scale of 1 (*disagree strongly*) to 7 (*agree strongly*) and descriptive statistics for this scale are provided in Table 2. After watching the lie videos, perceivers completed a truth or lie measure, in which they indicated whether they thought the targets were lying or telling the truth and rated their confidence in their judgments of the targets' honesty and whether they trusted the target (see Appendix E).

### Procedure

One of the two video orders for the personality and lie videos were randomly chosen for each session before the study. The questionnaires were completed via Qualtrics. Participants reviewed the consent form and after consenting they completed the personality and honesty self-report, as well as demographics measures. They then viewed the videos of 10 individuals answering questions about their major life decisions, passions, and greatest accomplishments.

After each video, participants rated the personality of the individual in the video. After viewing all the personality videos and rating the personality of all the individuals in the videos, participants viewed the 14 low and high stakes truth or lie videos and after each video completed the truth or lie measure. After participants watched all the lie videos and completed the truth or lie measure for each target, they were debriefed, and the study ended. For those that completed the study in a Social Psychology course ( $n = 97$ ) and a Psychology and Law course ( $n = 61$ ), questionnaires were completed on paper instead of Qualtrics. Finally, those that completed the study in a Sensation and Perception undergraduate course ( $n = 30$ ) also completed the questionnaires on paper and watched the lying videos first and rated whether they thought the targets were lying or telling the truth and then watched the personality videos and rated the personality of the targets.

### **Data Analytic Procedure**

Using the Social Accuracy Model (Biesanz, 2010) allowed me to assess individual differences in perceptive distinctive and normative accuracy. I analyzed Equation 1 to assess overall impression accuracy across all the personality traits, except I focused on the perceiver random effects to assess the individual differences between perceivers instead of targets. For this study I was interested in how accurate perceivers were in judging personality. The equations for the level two characteristics were:

$$\beta_{0ij} = \beta_{00} + \beta_{01} + u_{0i} + u_{0j} + u_{0(ij)},$$

$$\beta_{1ij} = \beta_{10} + \beta_{11} + u_{1i} + u_{1j} + u_{1(ij)}, \text{ and}$$

$$\beta_{2ij} = \beta_{20} + \beta_{21} + u_{2i} + u_{2j} + u_{2(ij)},$$

where  $\beta_{0ij}$  estimates the intercept for perceiver  $i$  for target  $j$ ,  $\beta_{1ij}$  estimates the distinctive accuracy of perceiver  $i$  for target  $j$ , and  $\beta_{2ij}$  estimates the normative accuracy of perceiver  $i$  for target  $j$ . To test my hypotheses, I included the variables of interest as a moderator to the level two equations. For example, to assess the accuracy of lie judgments I used Equation 2:

$$\beta_{0ij} = \beta_{00} + \beta_{01}\text{LyingAccuracy}_i + u_{0i} + u_{0j} + u_{0(ij)},$$

$$\beta_{1ij} = \beta_{10} + \beta_{11}\text{LyingAccuracy}_i + u_{1i} + u_{1j} + u_{1(ij)}, \text{ and}$$

$$\beta_{2ij} = \beta_{20} + \beta_{21}\text{LyingAccuracy}_i + u_{2i} + u_{2j} + u_{2(ij)},$$

where lying accuracy, the total number of correct truth and lie judgments, was added as a moderator of the distinctive and normative accuracy slopes to determine whether good distinctive and normative judges of personality are also more accurate in their judgments of lying. I followed the same procedure for all the moderator variables being assessed in my hypotheses. However, when assessing the effects of good judges of specific traits, I only included the items that assessed that trait and assessed the accuracy of those judgments. For example, when assessing the good judge of honesty-humility I only included the perceivers' ratings of the honesty-humility items and then used equation 1 to assess distinctive and normative accuracy.

CHAPTER V  
THESIS STUDY RESULTS

**General Impression Accuracy**

**Personality Impression Accuracy**

First, I assessed the general accuracy of the perceivers' personality impressions using Equation 1. Then I tested whether there were significant individual differences in the ability to accurately judge personality and the ability to be accurately judged using a chi square test. Overall, perceivers were distinctively accurate, meaning their impressions of the target were related to the target's self-report. This indicates that perceivers had an accurate understanding of the unique traits of the personality video targets (Table 3). Perceivers were also normatively accurate, meaning they viewed targets, on average, as similar to the average person and positively (Table 3).



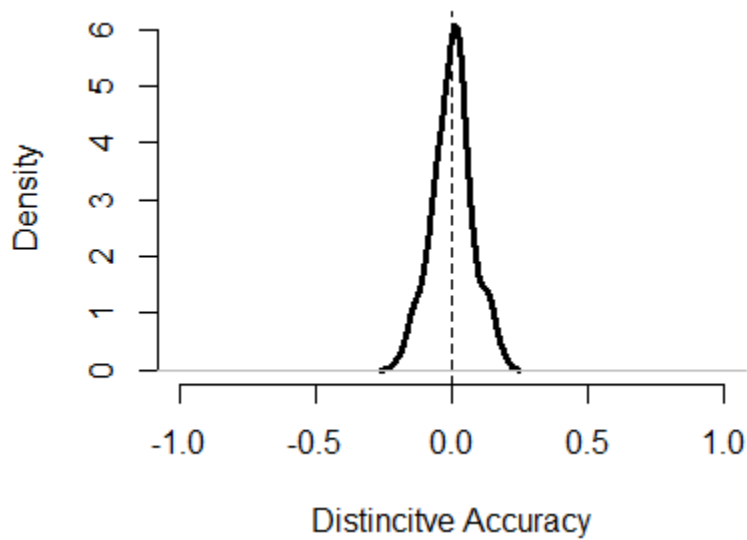
Table 3 Personality Impression Accuracy

<i>Parameter</i>	<i>Estimates (SE)</i>
Fixed Effects	
Intercept	3.77 (0.05)***
Distinctive Accuracy	0.29 (0.04)***
Normative Accuracy	0.81 (0.07)***
Random Effects	
Perceiver	
Intercept	0.27***
Distinctive Accuracy	0.09***
Normative Accuracy	0.35***
Target	
Intercept	0.15***
Distinctive Accuracy	0.13***
Normative Accuracy	0.21***
Dyad	
Intercept	0.05***
Distinctive Accuracy	0.14***
Normative Accuracy	0.28***
Residual SD	1.24
Sample Sizes	
Perceivers	257
Targets	10
Dyads	2014

*Note.* \*\*\* $p < .001$

Moreover, there were significant individual differences between the accuracy of perceivers and how accurately targets were viewed. There were significant individual differences in how distinctively accurate perceivers were (Table 3, Random Effects), meaning that some perceivers were, on average, more accurate than others. This provides evidence of the good judge of personality, as good judges of personality are individuals who more accurately judge personality. There were significant individual differences in how normatively accurate perceivers were (Table 3, Random Effects), indicating that perceivers differed in how positively they viewed others. I created density plots to provide a visual representation of the variability of the normative and distinctive accuracy assessments. The density plot for perceiver distinctive

accuracy shows the variability between perceivers in their ability to judge others distinctively accurately (Figure 4). The density plot for perceiver normative accuracy shows the variability between perceivers in their ability to judge others normatively accurately (Figure 5). These density plots show variability in how accurately the perceivers were in their personality judgments, further supporting that there were individual differences between perceivers in how accurate their judgments were. While the variability is narrow, there are still individual differences in perceivers' ability to distinctively accurately judge others.



*Figure 4* Density plot of the distinctive good judge

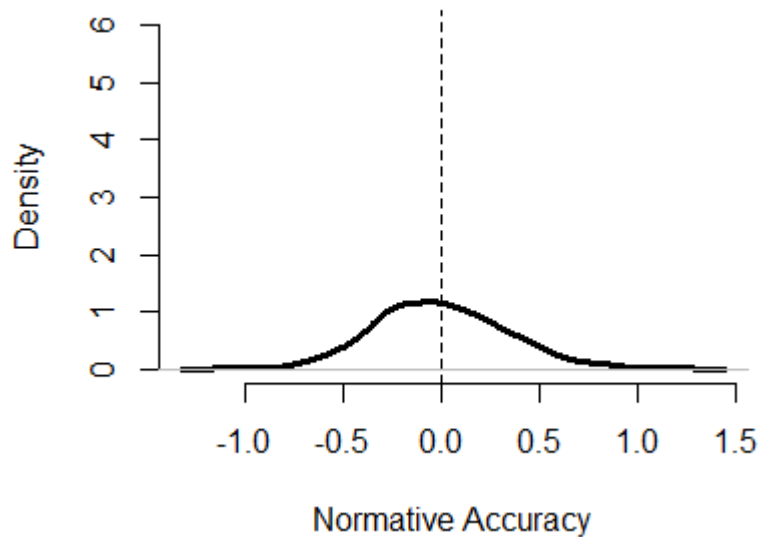


Figure 5 Density plot of the normative good judge

Finally, there were also significant individual differences in how accurately targets were viewed, for both distinctive and normative accuracy (Table 3, Random Effects), indicating that targets differed in how accurately they were viewed. This provides evidence of the good target of personality, as good targets are individuals whose personality is judged more accurately. Finally, there were significant differences between dyads on distinctive and normative accuracy above and beyond those accounted for by the perceiver and target effects (Table 3, Random Effects).

### **Lying Impression Accuracy**

To assess overall lying accuracy, I first added up the total number of accurate lie judgments for each perceiver to create a total lying accuracy variable. The total number of accurate judgments ranged from 0 to 13 out of a possible 14 videos ( $M = 7.73$ ,  $Mdn = 8$ ,  $SD = 1.89$ ), with 55% of perceived lie judgments being accurate (Table 3). That is, 55% of the time, perceivers accurately judged whether targets were lying or telling the truth. Figure 6 shows the

frequency of total accurate truth and lie judgments, with a dashed line where accuracy equaled 7 indicating chance levels of accuracy. The dashed line where accuracy equals 8 shows the median accuracy score. I ran a one-sample t test to assess whether lying accuracy was significantly different than chance levels of getting 50% correct (7 correct judgments) and results indicate that this level of accuracy is significantly higher than chance levels,  $t(256) = 6.24, p < .001$ . This indicates that, on average, participants were slightly above chance levels for detecting lying.

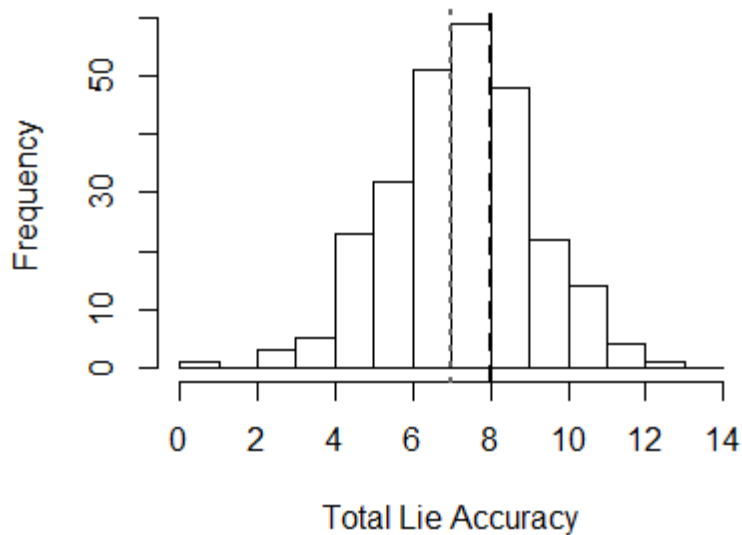


Figure 6 Histogram of total lie accuracy

Table 4 reports the number of times participants correctly rated targets as honest or lying, as well as the number of times participants incorrectly rated targets as honest or lying. These numbers are then broken down for low and high stakes lies as well as the four different groups. Table 4 also reports the percentages of correct and incorrect impressions of honesty and lying. These percentages were created by dividing the number of correct impressions (e.g. targets were

perceived as honest when they were honest or perceived as lying when they were lying) and incorrect impressions (e.g., targets were perceived as honest when they were lying or perceived as lying when they were honest) by the total number of impressions formed.

When looking at the frequency of perceived honest and lie judgments for overall lying accuracy, low stakes lies, SONA participants, psychology and law participants, and sensation and perception participants, participants tended to be accurate more often in their judgments of honesty and inaccurate more often in their perceptions of lying (Table 4). This means that perceivers may have been more likely to rate someone as being honest when the target was honest and more likely to rate someone as honest even when they were lying. When judging high stakes lies, participants tended to be accurate more often in their judgments of lying and inaccurate more often in their judgments of honesty (Table 4, High Stakes Lying Accuracy). This means that perceivers may have been more likely to rate someone as lying when they were lying and more likely to rate someone as lying even when targets were honest when judging high stakes lies. For those that completed the study in the social psychology course, participants tended to be equally accurate in rating lies and honest statements and tended to be inaccurate more often in their perceptions of lying (Table 4, Social Psychology Lying Accuracy). This means that perceivers may have been equally accurate when rating honest and lie statements and more likely to rate targets as lying when they were honest. However, these percentages are difficult to interpret as there were more honest videos. This makes it important to conduct further analyses to determine lying accuracy.

Table 4 Lying Accuracy Frequency

	Target Honest (%)	Target Lying (%)
Total Lying Accuracy		
Perceived Honest	1065 (29%)	598 (16%)
Perceived Lying	1026 (28%)	967 (26%)
By type of lie		
High Stakes Lying Accuracy		
Perceived Honest	589 (28%)	360 (17%)
Perceived Lying	459 (22%)	684 (33%)
Low Stakes Lying Accuracy		
Perceived Honest	476 (30%)	238 (15%)
Perceived Lying	567 (36%)	283 (18%)
By group		
SONA Lying Accuracy		
Perceived Honest	324 (31%)	175 (17%)
Perceived Lying	268 (26%)	269 (26%)
Psychology and Law Lying Accuracy		
Perceived Honest	228 (27%)	156 (18%)
Perceived Lying	260 (31%)	208 (24%)
Social Psychology Lying Accuracy		
Perceived Honest	388 (29%)	185 (14%)
Perceived Lying	375 (28%)	386 (29%)
Sensation and Perception Lying Accuracy		
Perceived Honest	125 (29%)	82 (19%)
Perceived Lying	123 (28%)	104 (24%)

*Note.* These percentages are out of the total number of impressions formed for each section of the table.

Given that a subset of participants completed the lying assessment first, I assessed whether there were differences in lying accuracy between participants that completed the lying assessment first versus those that completed the lying assessment last to determine whether order effects influenced the results. Across the four groups (three different classes and SONA), the average accuracy scores ranged from 7.15 to 8.01, with participants that completed the study through SONA being the most accurate in detecting deception and participants that completed the study through a psychology and law course being the least accurate (Table 5). To determine whether these differences were significant, I ran a univariate analysis of variance using simple

contrast coding to compare the groups that completed the lying assessment last to the group that completed it first. There were significant group differences,  $F(3) = 3.71, p = 0.01$ , however those differences were between those from the psychology and law course versus the social psychology and SONA participants, not between the groups that completing the lying assessment first versus last (Table 5).

Table 5 Lying Accuracy by Group

Variable	<i>n</i>	<i>Mean</i>	<i>SD</i>	<i>Contrast Estimate</i>	<i>SE</i>
SONA	74	8.01	1.64	0.68	0.42
Psychology and Law	61	7.15	1.76	-0.19	0.32
Social Psychology	97	7.98	2.11	0.69	0.29
Sensation and Perception	30	7.39	1.75		

*Note.* Sensation and Perception course served as a reference group

## Good Judges and Lying Accuracy

### Are Good Distinctive Judges More Accurate in Detecting Lies?

I first hypothesized that good distinctive judges, those that view targets in line with the target's unique personality traits, would detect lies more accurately than a poor judge. To analyze my first hypothesis, I assessed the total lying accuracy as a moderator to Equation 1. This allowed me to examine whether lying accuracy moderated the relationship between perceiver ratings and the target's personality. Results indicated that lying accuracy did not moderate the relationship between perceivers' ratings of targets' personality and the distinctive accuracy assessment (Table 6), meaning that distinctive good judges did not more accurately detect lies. I followed the same procedure to assess whether normative good judges were more accurate in detecting lies and found that lying accuracy did not moderate the relationship between perceivers' ratings of targets' personality and the normative accuracy assessment (Table 6),

meaning that normative good judges did not more accurately detect lies. These results show that individuals who were more accurate at judging lies were not more accurate in forming personality impressions.

Table 6 Personality Accuracy Moderated by Perceptions of Lying

Variable	Estimate	SE
Lying accuracy		
Overall		
Distinctive	0.003	0.004
Normative	-0.01	0.01
High stakes only		
Distinctive	0.00	0.01
Normative	-0.02	0.02
Honesty Bias		
Overall		
Normative (total honest ratings)	0.02*	0.01
Normative (total incorrect honest ratings)	0.05**	0.02
High Stakes only		
Normative (total honest ratings)	0.05**	0.02
Normative (total incorrect honest ratings)	0.05**	0.02

Note. \* $p < .05$ , \*\* $p < .01$

I also predicted that the ability of a good distinctive judge to detect deception would be stronger with high stakes lies. To assess this, I only included judgments for high stakes lies and added that as a moderator to Equation 1. However, high stakes lies did not moderate the relationship between perceivers' ratings of personality and the distinctive accuracy assessment (Table 6). I followed the same procedure to assess whether individuals who were more accurate in lie detection tended to view others normatively and found that accuracy of rating high stakes lies did not moderate the relationship between perceivers' ratings of personality and the normative accuracy assessment (Table 6). This means that individuals who were more accurate in judging high stakes lies were not more accurate in forming personality impressions.



### **Do Normative Good Judges Display an Honesty Bias?**

I hypothesized that normative judges would tend to rate others as being honest, since they tend to view others positively. To assess whether normative judges displayed an honesty bias, I only included the times that perceivers rated targets as being honest and added that as a moderator to Equation 1. Those honest judgments consisted of correct and incorrect honest judgments. I used this procedure because previous studies that assessed honesty bias looked at the total number of honest judgments, both accurate and inaccurate (Bond & DePaulo, 2008). Results indicated that individuals who formed more honest judgments were more likely to view others normatively accurately and positively (Table 6). Next, I created a variable in which I only included the times that perceivers *inaccurately* rated targets as being honest.

I followed this procedure because it better represents an honesty bias; if perceivers rate a target as honest when they were honest, that does not display bias but an accurate impression of honesty. I added the total number of incorrect honest judgments as a moderator to Equation 1 and found that individuals who formed more incorrect honest judgments were more likely to view others normatively and positively (Table 6). These results replicate when examining only high stakes lies (Table 6). Together, these results support the idea that individuals who tend to view others as honest, also tend to view others as similar to the average person and positively.

### **Are Good Judges of Specific Traits More Accurate in Detecting Lies?**

I also hypothesized that good judges of the specific traits would more accurately detect lies. To determine who is able to accurately assess honesty-humility in others, I used SAM (see Equation 1), but only included the eight items that assessed honesty-humility. Then, paralleling

previous approaches, I included perceiver's lie detection accuracy as a moderator in the equation. Individuals who were more accurate in detecting lies were not more distinctively or normatively accurate in rating the honesty-humility of others (Table 7).

Next, I assessed the influence of good judges of agreeableness by including only the impression items that rated the trait of agreeableness, then included lying accuracy as a moderator to Equation 1. Results indicated that being a good distinctive or normative judge of agreeableness were not more accurate at detecting deception (Table 7).

Table 7 Good Judge of Honesty-Humility and Agreeableness and Lying Accuracy

Parameters	Honesty-Humility Estimates ( <i>SE</i> )	Agreeableness Estimates ( <i>SE</i> )
<b>Fixed Effects</b>		
Intercept	4.05 (0.05)***	3.70 (0.06)***
Distinctive Accuracy	0.17 (0.07)***	0.26 (0.08)***
Normative Accuracy	0.71 (0.06)***	0.91 (0.06)***
Lying Accuracy	-0.0003 (0.004)	-0.000004 (0.003)
Distinctive*Lying Accuracy	-0.0001 (0.003)	-0.0001 (0.004)
Normative*Lying Accuracy	-0.00001 (0.002)	-0.00001 (0.002)
<b>Random Effects</b>		
<b>Perceiver</b>		
Intercept	0.24***	0.28***
Distinctive Accuracy	0.18***	0.18***
Normative Accuracy	0.35***	0.29***
<b>Target</b>		
Intercept	0.16***	0.17***
Distinctive Accuracy	0.21***	0.25***
Normative Accuracy	0.18***	0.16***
<b>Dyad</b>		
Intercept	0.37***	0.34***
Distinctive Accuracy	0.51***	0.61***
Normative Accuracy	0.40***	0.36***
Residual SD	0.82	0.76

Note. \*\*\* $p < .001$

### Perceiver Traits and Lying Accuracy

#### Are Open and Agreeable Judges More Accurate in Detecting Lies?

I also predicted that perceivers who were high in openness and agreeableness, respectively would be more accurate in detecting lies. To test this hypothesis, I created a composite score for the personality traits of openness and agreeableness for each perceiver. I ran a linear regression, first with the openness composite as the independent variable and lying accuracy as the dependent variable, then with the agreeableness composite as the independent variable. However, being high in openness and agreeableness did not relate to higher accuracy in lie detection (Table 8).

Table 8 Personality Trait Predictors of Lying Accuracy

Variable	<i>B</i>	<i>SE</i>	<i>t</i>
Openness			
Constant	7.17***	0.75	9.57
Openness	0.10	0.14	0.74
Agreeableness			
Constant	8.40***	0.87	9.67
Agreeableness	-0.12	0.15	-0.79
Value Honesty			
Constant	7.45***	1.54	4.82
Value Honesty	0.05	0.27	0.19

Note. \*\*\* $p < .01$

#### **Are Those That Value Honesty More Accurate in Detecting Lies?**

I hypothesized that those that value honesty would more accurately detect lies, as honesty is more important to them in their daily life. To assess this, I created a composite score for each perceiver on valuing honesty and inputted that as the independent variable in a linear regression, with lying accuracy as the dependent variable. Results indicated that valuing honesty did not predict lying accuracy (Table 8). However, given the low reliability estimate in my sample this is underestimating the true effect.

#### **Are Those Who Are Confident More or Less Accurate in Detecting Lies?**

Next, I hypothesized that confidence in lie judgments would be associated with the accuracy of lie judgments. To assess this, I related perceivers' lying accuracy to their confidence in their judgments of honesty or lying. Overall, those that were more accurate in judging lies were not significantly more confident in their ratings (Table 9).

Table 9 Relating Lying Accuracy to Confidence and Trust for Good Judges

Predictors	Confidence <i>B</i> ( <i>SE</i> )	Trust <i>B</i> ( <i>SE</i> )
Lying Accuracy	0.16 (0.10)	0.34 (0.43)
Distinctive Good Judge Moderation		
Distinctive Good Judge x Lying Accuracy	0.79 (0.47)	0.68 (0.45)
Dropping the moderation		
Distinctive Good Judge	2.58 (0.65)***	1.09 (0.71)
Normative Good Judge Moderation		
Normative Good Judge x Lying Accuracy	0.18 (0.11)	0.14 (0.10)
Dropping the moderation		
Normative Good Judge only	0.39 (0.15)***	0.35 (0.16)***

*Note.* \*\*\* $p < .01$

I also predicted that good judges that were confident in their lie judgments would be more accurate because they would not focus on irrelevant cues. To assess this, I first related perceivers' lying accuracy to their confidence in their judgments of honesty or lying and included the distinctive good judge assessment as a moderator in the equation. Distinctive good judges were more confident in their judgments, but that confidence was not related to higher levels of lie detection accuracy (Table 9). This means that the relationship between lying accuracy and confidence in truth and lie judgments is not stronger for distinctive good judges. Due to the interactions between the distinctive good judge assessment and lying accuracy being non-significant, I dropped the interaction to trim the model for parsimony (Table 9).

Next, I added the assessment of the normative good judge as a moderator to the equation of accuracy and confidence. The normative good judge assessment did not moderate the relationship between lying accuracy and confidence (Table 9), meaning that the relationship

between lying accuracy and confidence was not stronger for normative good judges. I then dropped the non-significant interaction for parsimony and found that normative good judges were, on average, more confident (Table 9).

## **Perception of Target and Lying Accuracy**

### **Are Those Who Are Perceived as Trustworthy Viewed as Honest?**

I next hypothesized that when perceivers viewed a target as credible or trustworthy they would be more likely to rate that target as being honest. To test this, I related perceivers' lying accuracy to their ratings of trusting the targets. Perceivers who accurately judged true statements and lies did not trust the target more (Table 9). I then tested whether this effect was stronger for distinctive good judges by including the assessment of the distinctive good judge as a moderator to the lie accuracy and trusting the target equation. Being a distinctive good judge did not moderate the relationship between lying accuracy and trusting the target (Table 9), meaning that the relationship between lying accuracy and trusting the target was not stronger for a good distinctive judge. I then dropped the nonsignificant interaction for parsimony and found that distinctive good judges, on average, did not trust the targets more (Table 9).

Next, I added the assessment of the normative good judge as a moderator to the lying accuracy and trusting the target equation. The normative good judge assessment did not moderate the relationship between lying accuracy and trusting the target (Table 9), meaning that this relationship was not stronger for normative good judges. I dropped the nonsignificant interaction for parsimony and found that normative good judges, on average, tended to trust targets more (Table 9).

## CHAPTER VI

### DISCUSSION AND CONCLUSION

Previous research has indicated that people are generally accurate in judging the personality of others (Biesanz, 2010; Biesanz & Human, 2010; Funder, 1995), but there have been mixed results about the existence of the good judge (Davis & Kraus, 1997) and the importance of the good judge in the accuracy of personality impressions (Haselton & Funder, 2006). However, recent studies have highlighted the importance of the good target (Human & Biesanz, 2013) and have used new methodological techniques to examine the importance of the good target in examining the good judge (Rogers & Biesanz, *in press*), which I replicated in my study. Using these techniques, my results provide further evidence for the existence and importance of the good judge of personality. As expected, perceivers did vary in their ability to accurately judge the personality of targets. Using good targets in my main study creates more variability in the estimates of the good judge, which increases the ability to find effects for the good judge. The goal of this project was to assess what other skills are related to accurately judging personality, specifically the ability to accurately judge lies.

Past research in detecting deception has found that, on average, people are inaccurate in their judgments of lying, with lie accuracy often being no better than chance (Bond & DePaulo, 2008; DePaulo et al., 1997). There are some predictors of being able to accurately judge lying, such as focusing on relevant cues of deception (DePaulo et al., 2003; Vrij et al., 2010), being trained in relevant cues of deception (Ekman & O'Sullivan, 1991; Vrij et al., 2010), and the

ability to identify micro-expressions (Frank & Ekman, 1997), however they are often unreliable (DePaulo et al., 2003; Vrij & Semin, 1996). The goal of this project was to assess whether being a good judge of personality was related to accurately judging lies. My results indicated that good distinctive and normative judges did not more accurately detect lies, however the accuracy of lie judgments was significantly greater than chance. These accuracy levels are consistent with those found in the original study using these stimuli, with perceivers rating lies at greater than chance levels (Hatz, 2007) and more accurate than what has been found in previous research in lie detection (Bond & DePaulo, 2008). It is possible that these video stimuli made *relevant* deception cues *available* to perceivers, allowing them to form more accurate judgments of lying. The lying scenario used in (Hatz, 2007) involved real transgressions, meaning that the targets who are lying about cheating did cheat. When compared to scenarios that instruct participants to lie when no cheating occurred, real transgression scenarios produced more deceptive cues (Hatz, 2007). This could indicate that using real transgression lying scenarios could lead to more accurate judgments of lying or honesty. Being a good judge, the personality traits of openness and agreeableness, and perceptions of targets did not appear to be related to higher levels of accuracy, so more research needs to be done to assess why these perceivers formed accurate impressions of lying and honesty on average.

These findings provide insight into personality and deception research, further informing both fields about the skills associated with forming accurate impressions. The results of this study also supported the conclusion of Schlegel et al. (2017), that the ability to accurately judge personality is not related to accurately judging lies, even when directly assessing personality and lying impressions instead of using a meta-analytic technique. This meta-analysis also excluded studies that scored personality accuracy based on target criteria, such as self and informant



reports, instead they focused on standardized assessments. Therefore, my results provide evidence that personality and lying impressions are likely not related when assessing personality accuracy using non-standardized assessments, specifically comparing self- and informant-reports to perceivers' impressions.

### **Interpretation of Results**

Even though my hypotheses were not supported, these null results provide information about the good judge of personality and the skills required to detect deception. These results indicate that the skills associated with accurately judging personality are not related to the skills required to detect lies.

#### **Good Judge of Personality**

The first important application of these results is that it further informs the field about the skills of the good judge of personality. First, this study provided further evidence of the existence of the good judge because perceivers varied in their ability to accurately judge personality. Earlier research found no effect of the good judge (Allik et al., 2016) or concluded that the good judge was not of significant consequence to accurately forming impressions (Haselton & Funder, 2006). However, recent research has highlighted the importance of the target when forming impressions (Human & Biesanz, 2013; Human et al., 2012). Indeed, the effect of the good judge is more pronounced when good judges rated good targets (Rogers & Biesanz, *in press*). I used this information to design my methodology for my main study because this study indicated that using good targets increases the variance of good judges, making it easier to differentiate between good judges. That is, if the targets provide little information about their personality, it is

harder to distinguish between good judges, but good targets who provide a lot of information make it easier to distinguish between good judges of personality.

While good judges are skilled at forming accurate personality impressions, there is limited research assessing their skills at forming other impressions such as lying. This study further informs research on the good judge by showing that they are not skilled at forming impressions of lying. One potential reason for this is that the ability to detect and utilize social cues does not translate to detecting and utilizing lying cues. Forming personality impressions is also a broader skill, as perceivers are judging multiple traits that individuals can be low or high in. On the other hand, accurately detecting lies is a specific impression of either truth or lie.

### **Accurately Detecting Deception**

The next important application of these results is that they further inform research on the skills required to detect deception. There are few reliable individual differences that contribute to accurately judging lies, and the results of this study indicate that being a good judge is not an individual difference in the ability to accurately judge lies. This is likely because detecting social cues may require different skills than those required to detect lying cues. One of the most reliable individual differences in the ability to detect lies is training (Ekman & O'Sullivan, 1991; Vrij et al., 2010), so it is possible that some training concerning which cues to focus on is required for accuracy to be significantly higher than chance levels. Since my participants were not trained in what cues indicate lying, this could have made detecting lies too difficult of a task.

Another possible influence is that detecting emotional cues, such as microexpressions in high stakes lies, is a crucial skill in detecting deception (Frank & Ekman, 1997). Research has shown that accurately judging personality is related to accurately judging affect (Hall et al.,

2016), however research has not assessed whether good judges are better at detecting emotional cues, such as microexpressions. It is possible that good judges are not skilled in detecting microexpressions, which is one of the few reliable cues to deception (Frank & Ekman, 1997; Yan et al., 2014). If good judges are not skilled in detecting microexpressions, this could decrease their ability to judge high stakes lies, so it is important to examine the individual differences in the good judge's ability to detect microexpressions.

### **Limitations**

There are some limitations in this study that may have influenced the results. First, using video targets does provide a different estimate of the ability of the good judge to form accurate impressions than in person interactions. Some research has indicated that good judges are able to make targets comfortable in their interactions resulting in the targets eliciting more cues to their personality (Letzring, 2008). Accurate judgments are formed using video targets (Rogers & Biesanz, *in press*) and were formed in the current study, showing that the ability of the good judge to accurately judge personality relates more to their ability to *detect* and *utilize* cues instead of their ability to elicit *relevant* cues from the target. While the good judge's ability is not limited to eliciting more cues during interactions, using video targets does alter the estimates of the good judge. As the current study did not assess the effect of the good judge using in person interactions, we cannot conclusively state that the good judge of personality is not more accurate in judging lies.

The sample in the current study also included a large number of participants that completed the study in psychology courses. Due to the large size of the groups that they participated in, it is possible that participants were distracted and influenced by the reactions of

those around them. The total number of accurate truth and lie judgments of the participants that completed the study through SONA was significantly higher than the lying accuracy of those that completed the study in the psychology and law course, indicating that there were lower levels of lie detection accuracy for one larger group of participants. This was only found for one larger group, so this is likely not a large limitation in the main study.

This group effect was not replicated in the other large group of participants from the social psychology course, they had higher levels of accuracy than those that completed the study in the psychology and law course. There were also some issues with the sound system in the social psychology course, which one would think would lead to lower levels of lie accuracy. Their higher levels of lie accuracy could indicate that those participants were more able to detect lies than others in the sample. This could be due to exposure to research in detecting deception covered in their social psychology course or because they could have relied more on nonverbal cues, possibly indicating that nonverbal cues are more reliable indicators of lying. General ability and reliance on nonverbal cues could have increased this group's lie accuracy, which would confound my results.

Finally, the manipulation used in the lie videos may have not been high stakes enough to create the emotional cues that lead to more accurate impressions of high stakes versus low stakes lies. High stakes lies are rated more accurately than low stakes lies due to the presence of microexpressions (Frank & Ekman, 1997), so if the manipulation did not result in expressing microexpressions the accuracy of judging lies would decrease.

## **Future Directions**

To build upon this research, future research could use a round robin design to estimate the individual differences in the accuracy of personality impressions. My study assessed the accuracy of the good judge using video targets, which provides a different estimate of the good judge than in person interactions. This is due to the good judge's ability to make targets comfortable in their interactions resulting in the targets eliciting more cues to their personality (Letzring, 2008). Using a round robin design would allow researchers to examine the good judge's ability to detect lies using good judge assessments obtained from in person interactions.

It would also be interesting to have participants complete a task that assesses their ability to detect microexpressions (Frank & Ekman, 1997). This would allow us to assess the individual differences in the accuracy of judging microexpressions and determine whether being a good judge relates to that ability. Finally, it may be possible to explore a lens model (Gosling, Ko, Mannarelli, & Morris, 2002; Hartwig & Bond, 2011) in which the accuracy of individuals' impressions are related to the relevant cues provided. Lens models state that environmental cues provide a lens through which perceivers can form impressions about a construct (Gosling et al., 2002), such as personality or lying. If a cue relates to a perceiver's judgment of the construct and the target's actual level of that construct, then the perceiver will form an accurate impression (Gosling et al., 2002), indicating that the cue was relevant. For example, a lens model of lie accuracy would relate the given deception cues to a perceiver's judgment of a target's honesty or dishonesty and the target's actual honesty or dishonesty. This model and behavioral coding could highlight relevant cues of deception as well as the differences in relevant verbal and nonverbal deception cues. This could demonstrate whether relying on verbal or nonverbal cues lead to more accurate judgments of deception.

## **Conclusion**

Even though my hypotheses were not supported these results provide research with a better understanding of good judges of personality and the individual differences that are not related to lie detection accuracy. This research provides evidence that the good judge exists and more accurately judges personality, indicating that without assessing the good target studies are missing a crucial component in determining the accuracy of forming impressions and the effect of the good judge. However, good judges do not more accurately detect lies, indicating that their skills in observing social cues are not related to the ability to observe lying cues. These results indicate the importance of understanding the processes involved in forming different types of impressions and start to determine which types of impressions are related to one another.

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APPENDIX A

PERSONALITY SELF-REPORT

Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

1	2	3	4	5	6	7
Disagree strongly	Disagree	Disagree a little	Neutral	Agree a little	Agree	Agree strongly

I See Myself as Someone Who . . .

1. Is bashful
2. Is bold
3. Is careless
4. Is cold
5. Is complex
6. Is cooperative
7. Is creative
8. Is deep
9. Is disorganized
10. Is efficient
11. Is energetic
12. Is envious
13. Is extraverted
14. Is fretful
15. Is harsh
16. Is imaginative
17. Is inefficient
18. Is intellectual
19. Is jealous
20. Is kind
21. Is moody
22. Is organized
23. Is philosophical
24. Is practical
25. Is quiet
26. Is relaxed
27. Is rude
28. Is shy
29. Is sloppy
30. Is sympathetic

31. Is systematic
32. Is talkative
33. Is temperamental
34. Is touchy
35. Is uncreative
36. In unenvious
37. Is unintellectual
38. Is unsympathetic
39. Is warn
40. Is withdrawn
41. Is authentic
42. Is phony
43. Is superficial
44. Is humble
45. Is entitled
46. Is honest
47. Is down to earth
48. Is materialistic
49. Is bright

APPENDIX B  
PERSONALITY IMPRESSIONS

Please write the number that indicates the extent to which you agree or disagree with that statement:

1	2	3	4	5	6	7
Disagree strongly	Disagree	Disagree a little	Neither agree nor disagree	Agree a little	Agree	Agree strongly

I see this person as someone who...

1. Is bashful
2. Is bold
3. Is careless
4. Is cold
5. Is complex
6. Is cooperative
7. Is creative
8. Is deep
9. Is disorganized
10. Is efficient
11. Is energetic
12. Is envious
13. Is extraverted
14. Is fretful
15. Is harsh
16. Is imaginative
17. Is inefficient
18. Is intellectual
19. Is jealous
20. Is kind
21. Is moody
22. Is organized
23. Is philosophical
24. Is practical
25. Is quiet
26. Is relaxed
27. Is rude
28. Is shy
29. Is sloppy
30. Is sympathetic
31. Is systematic
32. Is talkative

33. Is temperamental
34. Is touchy
35. Is uncreative
36. In unenvious
37. Is unintellectual
38. Is unsympathetic
39. Is warn
40. Is withdrawn
41. Is authentic
42. Is phony
43. Is superficial
44. Is humble
45. Is entitled
46. Is honest
47. Is down to earth
48. Is materialistic
49. Is bright
50. Is mature
51. Is reasonable
52. Is hypocritical
53. Is inconsiderate
54. Has high status
55. Is a leader
56. Is respected and admired by others
57. Is very likable
58. Is physically attractive
59. Is engaging and interesting
60. Is from the same cultural or ethnic group as me
61. Has a similar accent or way of speaking as me
62. Is aggressive and unrestrained
63. Is bashful and unassuming
64. Is opportunistic and crafty
65. Is sarcastic and demanding

1	2	3	4	5	6	7
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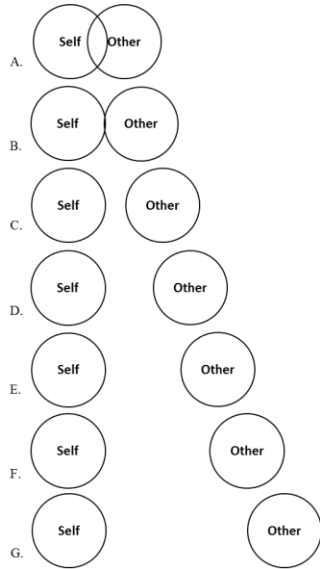


Not At All			Neutral			A Great Deal
------------	--	--	---------	--	--	--------------

66. How much do you like this person overall?  
 67. How much do you trust this person?  
 68. How well do you think your impression would agree with someone who knows this person very well?  
 69. How well do you think this person's impression of you would agree with how you and your close friends view your personality?  
 70. What are the individual's political beliefs? Use scale below.

1	2	3	4	5	6	7
Conservative			Neutral			Liberal

71. Please circle the picture or letter below which best depicts you in relation to the person in the video.




---

79. Have you met this person before? Yes No

80. If yes, how do you know him/her? \_\_\_\_\_

APPENDIX C  
DEMOGRAPHICS

1. What is your age (in years)? \_\_\_\_\_
2. What is your gender?
  - A. Male
  - B. Female
  - C. Other
  - D. Prefer not to answer
3. What is your ethnicity?\_\_\_\_\_
4. What is your major?\_\_\_\_\_
5. What is your class rank?
  - A. Freshman
  - B. Sophomore
  - C. Junior
  - D. Senior
  - E. Other

APPENDIX D

VALUING HONESTY SELF-REPORT

*Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who likes to spend time with others? Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.*

1	2	3	4	5	6	7
Disagree strongly	Disagree	Disagree a little	Neutral	Agree a little	Agree	Agree strongly

I...

1. Am trusted to keep secrets.
2. Keep my promises.
3. Believe that honesty is the basis for trust.
4. Can be trusted to keep my promises.
5. Am true to my own values.
6. Lie to get myself out of trouble.
7. Am hard to understand.
8. Feel like an imposter.
9. Like to exaggerate my troubles.

APPENDIX E  
TRUTH OR LIE IMPRESSIONS

*Please indicate whether this person was telling the truth or lying:*

1	2
Truth	Lie

*Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.*

1	2	3	4	5	6	7
Disagree strongly	Disagree	Disagree a little	Neutral	Agree a little	Agree	Agree strongly

1. I am confident in my impression of this person's honesty.
2. I trust this person.

## VITA

Amanda Yeager Warner was born on December 1, 1993, to Justin Paul Yeager and Karen Koehler Yeager. Growing up in Kentucky, Amanda attended Northern Elementary, Scott County Middle School, and Scott County High School, graduating from high school in 2012. Amanda started at Lee University in 2012, pursuing a degree in Psychology. In May 2016 Amanda was awarded a Bachelor of Arts degree in Psychology with a minor in Religion. After completed her undergraduate studies, Amanda started her graduate program at the University of Tennessee at Chattanooga. Amanda accepted a position as a graduate assistant in the psychology department, where she graded assignments and taught a few courses, as well as a position as a statistics laboratory instructor and teaching a general psychology course. Amanda will graduate from the Psychology Research Masters program at UTC in 2018 and then pursue a career in teaching or statistics.